A Short-Term Art Therapy Group for Individuals with Dementia

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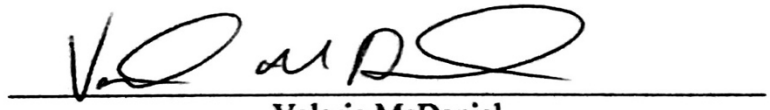

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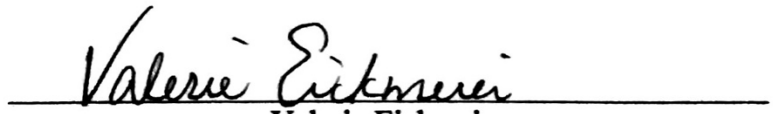

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ABSTRACT

This human-subject study used the Quality of Life-Alzheimer's Disease (QOL-AD) for its pre- and post-test intervention format without a control group. It was hypothesized that there would be an increase in quality of life (QoL) scores after participation in the 6-week art therapy group. The findings were anticipated to suggest that the supportive group art therapy setting improved QoL in the participants in the domains of energy, mood, and self as a whole. The pre-QOL-AD provided a baseline measure of QoL that was compared to the post-QOL-AD to identify if a change in QoL occurred as a result of participation in the study. Eight participants created an ongoing life review project, recommended by Judith Wald, over six sessions. They were provided with 18-by-24-inch white artist paper, colored pencils, markers, pre-cut collage images, and glue. The paper was pre-divided into six sections. Each section represented an important phase of life, ranging from childhood to the present. The results showed an increase in QoL for five of the eight participants. The participant and caregiver pre- and post-test total scores and scores for the domain of self as a whole were found to be approaching significance. These findings provide support for the use of art therapy to improve QoL for individuals with dementia. Future implications of this study include additional research on the use of Judith Wald's method and the QOL-AD as a measure of QoL for individuals with dementia, particularly for art therapy studies.

Keywords: Art therapy, dementia, quality of life, energy, mood, self as a whole, autobiographical memory, life review, storytelling

DEDICATION

This work is dedicated to the millions of individuals currently living with dementia in the world. Though I have read several books and articles about this condition, I do not truly know what it is like to experience day-to-day life with dementia. What I do know is that facilitating the art therapy group at Joy's House Adult Day Service was tremendously rewarding; that each individual was able to create art despite dementia; and that their caregivers expressed gratitude that made this work more than worth it.

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My graduate journey would not have been the same without the individuals that supported me over the past two years. To my cohort: Bailee, Courtney, Dani, Heather, Jessie, Lauren, and Meaghan; thank you for the constant validation and humor. It has been truly inspiring to see how each of you have developed as clinicians. You have all impacted my professional identity by sharing your experiences with me and listening to my own. Eileen Misluk, for continuous support, encouragement, and understanding throughout this entire process. Michelle Itczak, for listening week after week, providing additional guidance, and bringing baked goods to class. Valerie McDaniel, for additional feedback and assistance with data analysis. And E'lisa Kelley, for providing another set of eyes and reassurance.

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Finally, to my parents – Jeffrey and Crystal Hinkle – thank you for the endless love and support you have provided over the past 25 years. I could not be more grateful for you both. My little sister, Bekah Hinkle, for (attempting) to keep me young and in the know as I lived under the rock known as graduate school. My fiancé, Jeffrey Hill, for the continuous patience and understanding you have shown me… and for packing my lunch nearly every day for the past two years. And my dearest friend, Abbi Hale, for supporting me unconditionally from an hour away.

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CHAPTER I

INTRODUCTION

Nancy L. Mace eloquently describes how dementia hinders everyday functioning in Zgola's book, *Doing Things: A Guide to Programming Activities for Persons with Alzheimer's Disease and Related Disorders*:

> "We give up our job only to find that we can no longer enjoy our hobbies either. We cannot get our clothes arranged right side out and someone must dress us. We get lost in the garden, digging up the flowers and leaving the weeds. We forget the grandchildren's names or whether our spouse is still alive. Fear and anxiety make a gentle wife into a shrew. Damage to the brain makes a husband deny that the house he built is his home. Some people fight these losses—stubbornly driving long after it becomes dangerous or 'doing their job' when they are only shuffling torn bits of paper. Others retreat into apathy, seeing the world with empty eyes" (1987, p. ix-x).

Mace's (1987) description provides several examples of the toll a dementia diagnosis can take on an individual's quality of life (QoL). QoL is "a multidimensional construct that incorporates physical, psychological, and social functioning" and affects an individual's health and well-being, cognitive functioning, social relationships, self-concept, and ability to perform daily activities (Chancellor, Duncan, & Chatterjee, 2013, p. 6). This construct has shown to be a prevalent concern when treating individuals with dementia (Hattori et al., 2011; Jones & Hays, 2016; Kim et al., 2016; Tai et al., 2016; Tucknott-Cohen & Ehresman, 2016; Cowl & Gaugler, 2014). Mace (1987), in particular, believes dementia care should focus on improving QoL rather than attempting to change the course of the illness.

Chancellor, Duncan, and Chatterjee (2013) determined through the review of case studies and several small trials that art therapy has been highly effective in many clinical settings (p. 1). However, there is limited empirical evidence to support art therapy as a beneficial treatment for individuals with dementia in a group setting (Beard, 2011; Chancellor et al., 2013; Cowl & Gaugler, 2014). Though existing studies have shown improvements in attention, pleasure, neuropsychiatric symptoms, social behavior, and self-esteem for individuals with dementia, there exist few systematically designed, documented, and evaluated art therapy studies (Chancellor et al., 2013, p. 1; Beard, 2011, p. 633). In their systematic literature review of 112 articles, Cowl and Gaugler (2014) found creative arts therapies to be effective in treating behavioral and emotional challenges of dementia, but concluded that quantifying findings remains a challenge when determining the efficacy of creative arts therapy, including art making (p. 281).

The preliminary literature review suggested that art therapy interventions were shown to improve QoL overall (Chancellor et al., 2014; Ehresman, 2013; Hattori, Hattori, Hokao, Mizushima, & Mase, 2011; Jones & Hays, 2016; Tucknott-Cohen & Ehresman, 2016). The researcher was interested in identifying which domains show greater improvement as a result of art therapy interventions, principally a life review project recommended by Wald (1989). This interest provided a catalyst for the development of a 6-week art therapy group for patients with dementia. The researcher measured the QoL of participants pre- and post-study using The Quality of Life-Alzheimer's Disease (QOL-AD) survey without a control group. It was hypothesized that a 6-week art therapy group would improve QoL scores in the domains of energy, mood, and self as a whole (Riley, 2001).

Operational Definitions of Terms and Concepts

Art therapy: "an integrative mental health and human services profession that enriches the lives of individuals, families, and communities through active art-making, creative process, applied psychological theory, and human experience within a psychotherapeutic relationship" (The American Art Therapy Association, 2017).

Autobiographical memory: a cognitive function that is significant for one's sense of self and social interactions throughout the life span; the remembered self (Broderick & Blewitt, 2015, p. 563).

"The bump" or the "reminiscence bump": memories of the self from the young adult period (from 18-22 years old) that are produced more frequently than predicted based on recency (Broderick & Blewitt, 2015, p. 566).

Crisis: turning point in life during which an individual can move forward or regress (Corey, 2013, p. 63).

Dementia: a neurodegenerative condition that hinders the brain's ability to remember, synthesize, and manipulate information; "to depart from one's mind" (Sahyouni, Verma, & Chen, 2017).

Erikson's theory of development: "holds that psychosexual growth and psychosocial growth take place together, and that each stage of life we face the task of establishing equilibrium between ourselves and our social world" (Corey, 2013, p. 63).

The Expressive Therapies Continuum (ETC): "a means to classify interactions with art media or other experiential activities in order to process information and form images" (Hinz, 2009, p. 4).

Flashbulb memory: "recollections that are especially vivid and personally relevant" (Broderick & Blewitt, 2015, p. 566).

Life review: the structured and systematic process of evaluating one's life and lived experience (Butler, 2002).

Psychosocial stages: Erik Erikson's basic psychological and social tasks that are either mastered from infancy to late adulthood (Corey, 2013, p. 63).

Quality of Life (QoL): "a multidimensional construct that incorporates physical, psychological, and social functioning" (Chancellor et al., 2013, p. 6).

Quality of Life measures: daily activities, health and well-being, cognitive functioning, social relationships, and self-concept (Chancellor et al., 2013, p. 6).

Quality of Life-Alzheimer's Disease (QOL-AD): an instrument that measures quality of life and has both patient and proxy rated elements (Chancellor et al., 2013, p. 6). Thirteen items reflect domains of quality of life in geriatric populations (Ready & Ott, 2003).

Reminiscence: a passive and spontaneous process of reflecting upon one's life and lived experience, central to the life review process (Butler, 1974).

CHAPTER II

LITERATURE REVIEW

Dementia is a neurodegenerative condition that hinders the brain's ability to remember, synthesize, and manipulate information. Symptoms include memory loss, personality changes, and cognitive dysfunction involving issues with language, communication, and thinking ("Dementia: Symptoms, Causes, Types & Treatments," n.d.; Sahyouni, Verma, & Chen, 2017, p. 60). Sahyouni, Verma, and Chen (2017) dissected dementia further into its prefix *de-* ("to depart"), and *-mens* (mind), and provided a concise definition: "to depart from one's mind" (p. 59). It is estimated that 47.5 million people in the world are currently living with dementia, and that this number will double every 20 years unless new interventions are developed ("Dementia: Symptoms, Causes, Types & Treatments," n.d.; Sahyouni, Verma, & Chen, 2017, p. xxii). The global cost of care for dementia could reach $1 trillion by the year 2030 ("Dementia: Symptoms, Causes, Types & Treatments," n.d.).

Types of Dementia

There are several diagnoses related to dementia: Alzheimer's disease, late-stage Parkinson's disease, Lewy body dementia, Huntington's disease, Vascular dementia, Normal Pressure Hydrocephalus, Frontotemporal dementia, chronic traumatic encephalopathy, Creutzfeldt-Jakob disease, Wernike-Korsakoff syndrome, and mixed dementia. If an individual experiences symptoms such as memory loss, personality changes, or cognitive dysfunction, they may be diagnosed with dementia (Sahyouni, Verma, & Chen, 2017, p. 60). Once diagnosed, features such as the area of the brain that is affected and disease progression help determine the cause for each case. The following dementia-related diagnoses are chronic and pervasive,

meaning that they are not reversible and will worsen over time (Sahyouni, Verma, & Chen, 2017, p. 60).

Alzheimer's disease. Alzheimer's disease (AD) is the most common cause of dementia, with 50-80% of cases being attributed to this disease ("Alzheimer's Disease," n.d.; Sahyouni, Verma, & Chen, 2017, p. 59-60). This irreversible and progressive disorder damages and destroys brain cells, resulting in memory loss and other cognitive impairments ("Alzheimer's Disease," n.d.). There are two types of AD – early-onset and late-onset. Early onset AD develops between the ages of 30 and 60, and late-onset AD occurs after the age of 60 ("Alzheimer's Disease," n.d.). An estimated 33% of individuals older than 85 have AD ("Dementia: Symptoms, Causes, Types & Treatments," n.d.). Symptoms include memory loss, confusion, delusions, paranoia, hallucinations, impulsivity, vision problems, misplacing things, poor decision making, losing track of time, problems with speaking or writing, changes in mood or personality, difficulty recognizing loved ones, difficulty learning new tasks, difficultly completing multifaceted tasks, and difficulty adjusting to new environments and events ("Alzheimer's Disease," n.d.; Sahyouni, Verma, & Chen, 2017, p. 77). At this point, the only way to confirm a diagnosis of AD is by autopsy (Stewart, 2004, p. 148).

Late-stage Parkinson's disease. When a specific group of dopamine-producing neurons deteriorate, Parkinson's disease (PD) can develop. This progressive and chronic nervous system disorder is considered another primary cause of dementia (Sahyouni, Verma, & Chen, 2017, p. 60). The development of PD typically occurs gradually, with symptoms going unnoticed for years. An estimated 50-80% of individuals with PD develop mild dementia, and up to 20% develop more severe symptoms ("Parkinson's Disease," n.d.). Symptoms include tremors, slowed movement, writing changes, loss of memory, speech changes, trouble concentrating,

depression, loss of automatic movement, impaired posture and balance, sleeping problems, irritability, disorientation, and hallucinations ("Parkinson's Disease," n.d.).

Lewy body dementia. A combination of AD and PD that is often misdiagnosed is dementia with Lewy Bodies (DLB) or Lewy body dementia (LBD) ("Lewy Body Dementia," n.d.; Sahyouni, Verma, & Chen, 2017, p. 60). LBD is a brain disorder resulting in irreversible cognitive decline and problems with movement. It is the second most common form of dementia ("Lewy Body Dementia," n.d.). Lewy bodies are associated with thinking and motor control. They are an alpha-synuclein protein that can build up in the brain; affecting memory, thinking skills, movement, mood, and behavior ("Lewy Body Dementia," n.d.). Lewy bodies have been found in the brains of individuals with AD, which may indicate that there is another form of AD with Lewy bodies, or that an individual can have both diagnoses ("Lewy Body Dementia," n.d.). Other symptoms associated with LBD include slow, rigid movements; shaking; balance issues; fainting; difficulty with concentration and alertness; visual hallucinations; daytime drowsiness; fluctuating changes in personality or mood; memory loss; confusion; and problems sleeping ("Lewy Body Dementia," n.d.).

Huntington's disease. An estimated 30,000 people in the United States have Huntington's disease ("Huntington's Disease," n.d.). This progressive disorder causes the loss of nerve cells in the part of the brain that regulates mood, movement, and cognitive skills ("Huntington's Disease," n.d.). Symptoms typically begin between the ages of 30 and 50, but can also occur as early as two years old or in later adulthood. When Huntington's disease affects individual under the age of 20, it is termed "Juvenile Huntington's" ("Huntington's Disease," n.d.). Early symptoms include behavioral changes, including irritability, hallucinations, and/or psychosis; abnormal muscle movements, particularly in the face, head, arms, and legs; and

problems with speech, memory, and judgment ("Huntington's Disease," n.d.). Individuals with Huntington's disease may also experience depression, anxiety, obsessive-compulsive behavior, and mood changes ("Huntington's Disease," n.d.). These individuals typically live 10 to 30 years following diagnosis, and most often die due to complications of Huntington's disease; namely heart failure, aspiration pneumonia, or injuries associated with a fall. Depression is common due to the physical changes in the brain, leading to higher risk of suicide ("Huntington's Disease," n.d.).

Vascular dementia. Dementia can also occur as a result of a cerebrovascular disease that causes many "micro" strokes within the brain (Sahyouni, Verma, & Chen, 2017, p. 60). In addition to strokes, vascular dementia can be attributed to high cholesterol, high blood pressure, and diabetes ("Vascular Dementia," n.d.). Thinking and cognitive skills decline as a result of oxygen and nutrient deprivation due to a blockage or reduced blood flow to the brain ("Vascular Dementia," n.d.). Symptoms can begin suddenly, especially after a stroke, and include confusion, trouble speaking or concentrating, loss of vision, difficulty solving problems or completing tasks, problems with bladder and bowel control, hallucinations, and being easily agitated or upset ("Vascular Dementia," n.d.).

Normal Pressure Hydrocephalus. When a buildup of cerebrospinal fluid in the ventricles of the brain occurs, Normal Pressure Hydrocephalus (NPH) results due to damage to the surrounding brain tissue ("Normal Pressure Hydrocephalus," n.d.). Three main identifiable symptoms include cognitive impairment, loss of bladder control, and difficulty walking. These symptoms develop slowly throughout the progression of NPH ("Normal Pressure Hydrocephalus," n.d.). Additional symptoms include nausea, headaches, blurred vision, difficulty focusing eyes, memory loss, personality and behavior changes, apathy and withdrawal,

speech problems, and mood changes. NPH is often misdiagnosed as AD ("Normal Pressure Hydrocephalus," n.d.). NPH has been found to occur due to brain surgery complications, brain tumors, aneurysm or bleeding in the brain, head injuries, stroke, meningitis, or other brain injuries, infections, or inflammation; though not all cases occur due to one of these contributing factors ("Normal Pressure Hydrocephalus," n.d.).

Frontotemporal dementia. Frontotemporal dementia (FTD) is related to AD, but attacks the frontal lobes of the brain (Sahyouni, Verma, & Chen, 2017, p. 60). This degenerative dementia includes several subtypes, including Pick's disease ("Frontotemporal Dementia," n.d.). FTD is characterized by the degeneration of the brain's frontal lobe, and can expand to the temporal lobe ("Frontotemporal Dementia," n.d.). The symptomology of FTD varies greatly from person to person, but there are three main groups of symptoms that are indicative of this type of dementia: a notable difference in behavior, progressive nonfluent aphasia (PNFA), and semantic dementia ("Frontotemporal Dementia," n.d.). Other symptoms include difficulty with complex planning or problem solving, and frontal release signs ("Frontotemporal Dementia," n.d.).

Chronic traumatic encephalopathy. Punch-drunk syndrome, known for its common diagnosis in football players and boxers, is also known as chronic traumatic encephalopathy (CTE) (Sahyouni, Verma, & Chen, 2017, p. 60). CTE is associated with blows to the head, though symptoms may not begin until years or decades after the initial brain injury ("Chronic Traumatic Encephalopathy (CTE) | Symptoms & Diagnosis," n.d.). Symptoms include problems with thinking and memory; personality changes; confusion; behavioral changes including aggression, depression, and suicidal thoughts; erratic behavior; problems paying attention and

organizing thoughts; and difficulty with balance and motor skills ("Chronic Traumatic Encephalopathy (CTE) | Symptoms & Diagnosis," n.d.).

Creutzfeldt-Jakob disease. The introduction and spread of incorrectly folded proteins causes a degenerative neurological condition called Creutzfeldt-Jakob disease (CJD) ("Creutzfeldt-Jakob Disease," n.d.). This brain disorder causes a degeneration of brain capacity and is sometimes referred to as "the human form of Mad Cow disease" because of their similar symptomology ("Creutzfeldt-Jakob Disease," n.d.). Symptoms include rapidly progressing dementia, memory loss, significant change in personality, hallucinations, impairment of speech, myoclonus (jerky, involuntary muscle contractions), difficulty in balance and coordination, rigid posture and changes in gait, and seizures ("Creutzfeldt-Jakob Disease," n.d.). There is no current treatment for CJD, and the continued replication of incorrectly folded proteins ultimately leads to death ("Creutzfeldt-Jakob Disease," n.d.).

Wernike-Korsakoff syndrome. Wernike-Korsakoff syndrome is a two-stage brain disorder resulting from thiamine (vitamin B1) deficiency ("Wernicke-Korsakoff Syndrome," n.d.). Alcohol is linked to the development of this brain disorder, which cannot be diagnosed while an individual is abusing alcohol or experiencing withdrawal. To be diagnosed, an individual must be sober and experiencing symptoms such as confusion, loss of muscle coordination, vision changes, short-term memory problems, agitation, loss of interest, language impairment, inability to perform complex motor tasks due to fine motor function degradation, and weakness in limbs ("Wernicke-Korsakoff Syndrome," n.d.). Shortly after this brain disorder develops, symptoms may also include skin changes and a swollen, reddened tongue ("Wernicke-Korsakoff Syndrome," n.d.). During the second phase, the Wernicke's symptoms fade and Korsakoff syndrome develops as a result of damage to the parts of the brain associated with

memory. Symptoms during phase two include difficulty forming new memories, mild to severe loss of memory, making up stories or words to compensated for memory loss (confabulation), and hallucinations ("Wernicke-Korsakoff Syndrome," n.d.).

Mixed dementia. "Dementia-multifactorial," or mixed dementia, is a dementia condition that involves symptoms and abnormalities of more than one type of dementia simultaneously ("Mixed Dementia," n.d.). Common occurrences include AD and vascular dementia, AD and LBD, and sometimes AD, vascular, and LBD altogether ("Mixed Dementia," n.d.). Research has resulted in the discovery that mixed dementia is more common than originally believed, and that many individuals with dementia over the age of 80 have mixed dementia ("Mixed Dementia," n.d.). Symptoms vary based on the combination of dementias, especially due to overlaps in symptomology. It is difficult to determine in this and other dementias whether an individual has an accurate diagnosis until they have died and an autopsy can be performed ("Mixed Dementia," n.d.).

Stages of Dementia

Individuals with dementia develop impairments at unpredictable rates. As these impairments develop, an individual experiences "stages" of dementia that can be generally categorized into early, middle, and late stages (Goldman, 2004, p. 206). The severity of each impairment varies from person to person, and increases as they progress through each stage.

Stage 1. During the first stage of AD and other dementias, there is no cognitive impairment. Because no symptoms are evident during this stage, AD and other dementias are not yet detectable. Stages 1-3 are considered "pre-dementia" stages ("The Seven Stages Of Dementia," n.d.).

Stage 2. During the second stage of AD and other dementias, there is a very mild decline. Occasional lapses of memory may occur, such as forgetting where an object has been placed or forgetting names that were previously familiar ("The Seven Stages Of Dementia," n.d.).

Stage 3. Mild decline continues into the third stage. Signs of this stage include getting lost easily, noticeably poor performance at work, forgetting the names of family members or close friends, difficulty retaining information read in a book or passage, losing or misplacing important objects, and difficulty concentrating ("The Seven Stages Of Dementia," n.d.).

Stage 4. Decline becomes moderate during the fourth stage. Social withdrawal, denial of symptoms, and changes in personality and mood are indicative of this stage ("The Seven Stages Of Dementia," n.d.). Other behaviors include decreased knowledge of current or recent events, difficulty remembering things about one's personal history, decreased ability to handle finances, disorientation, and difficulty recognizing faces and people ("The Seven Stages Of Dementia," n.d.).

Stage 5. Stage five consists of moderately severe decline. Symptoms include inability to remember major details, disorientation in regard to time and place, difficulty making decisions, and forgetting basic information about oneself ("The Seven Stages Of Dementia," n.d.).

Stage 6. The decline becomes severe in the sixth stage of AD and other dementias. Individuals within this stage begin to forget the names of their immediate family members and may require full time care. Symptoms include delusional behavior, obsessive behavior and symptoms, anxiety, aggression, agitation, loss of willpower, wandering, difficulty sleeping, and hallucinations ("The Seven Stages Of Dementia," n.d.).

Stage 7. The final stage of AD and other dementias involves very severe decline. Individuals within this stage progressively lose motor and speech skills. Walking, eating, and using the restroom requires assistance ("The Seven Stages Of Dementia," n.d.).

Developmental Theories of Later Life

Though dementia can occur in younger individuals, it is most common in people over the age of 65. Several theorists have explored life span and development, but few have focused on developmental theories for later stages of life (Kelley, 2017, p. 7). Erik Erikson, Robert Peck, and Gene Cohen are among the few who have explored the needs of individuals in later stages of life.

Erik Erikson. Erik Erikson proposed a theory of personality development that explains the psychosocial aspects of behavior, including attitudes and feelings toward the self and others (Broderick & Blewitt, 2015, p. 11). He believed that personal identity and interpersonal attitudes evolve continually from birth to death as individuals face different crises or developmental tasks in each stage (Broderick & Blewitt, 2015, p. 11). The individual either masters each developmental task or fails to resolve the crisis (Corey, 2013, p. 88). Erikson described eight psychosocial stages, the last three of which occur during adult life (Broderick & Blewitt, 2015, p. 11).

Intimacy versus isolation. Young adults develop love or distancing and fear of intimacy as they choose to or not to share their identity with others and commit to partnerships (Broderick & Blewitt, 2015, p. 12). An individual who fails to achieve intimacy may feel alienated and isolated (Corey, 2013, p. 65).

Generativity versus stagnation. Throughout middle adulthood, care or self-absorption result from choosing to or not to contribute to the next generation (Broderick & Blewitt, 2015, p.

12). This involves moving beyond the self and family. If an individual fails to achieve a sense of productivity, psychological stagnation may occur (Corey, 2013, p. 65).

Ego integrity versus despair. In Erikson's final stage of psychosocial development, late adulthood results in wisdom or regret. An adult in this stage might come to terms with their successes, failures, and missed opportunities (Broderick & Blewitt, 2015, p. 12). Ego integrity occurs when an individual looks back on their life with few regrets and feels as though their life was "personally worthwhile" (Corey, 2013, p. 65). If an individual is unable to look back on their life in this way, they may develop feelings of despair, hopelessness, guilt, resentment, and self-rejection (Corey, 2013, p. 65).

Robert G. Peck. Erikson's final stage, ego integrity versus despair, was divided further into challenges related to mid-life (40-65) and old age (65 years and older) by Robert Peck (1956). Personality development in later life, according to Peck (1956), is met with three challenges: ego differentiation versus work-role preoccupation, body transcendence versus body preoccupation, and ego transcendence versus ego preoccupation.

Ego differentiation versus work-role preoccupation. The first challenge considers an individual's choice to remain stuck in how they have identified themselves up to that point, or to begin exploring new ways to redefine themselves (Peck, 1956).

Body transcendence versus body preoccupation. The second challenge considers an individual's ability to cope with the physical changes that accompany aging (Peck, 1956). An individual experiencing these changes can either focus on the pains and restrictions that can act as a constant reminder of growing old, or accept that these changes are part of the normal aging process (Peck, 1956). Acceptance occurs when the individual understands their limitations and makes appropriate adaptations to their activities of daily living.

Ego transcendence versus ego preoccupation. The third and final challenge involves coming to terms with the end of one's life. Ego transcendence parallels Erikson's stage of ego-integrity, as both involve an individual coming to terms with the inevitability of death and feeling as though they have lived a meaningful life (Peck, 1956).

Gene Cohen. Four developmental stages for the second half of life were developed by Gene Cohen (2006). These stages resemble Erikson's stage of ego integrity versus despair. In his later developmental stages, Cohen (2006) outlined the essential plans, actions, and influences that individuals may experience in older age. Similarly to Peck's stage of body transcendence versus body preoccupation, Cohen (2006) believed that acknowledging the existence of a problem meant simultaneously acknowledging the possibility of a solution (p. 7). Once a problem has been identified, and individual may need to adapt and modify their daily routine in order to adjust to new physical limitations. Reevaluation, discovery, and experimentation continues in this way with every developmental stage of later life (Cohen, 2006).

Cohen (2006)'s four developmental stages of the second half of life are essential to the QoL of older adults. These stages include reevaluation, liberation, summing, and encore. Reevaluation occurs in mid-life, whereas liberation, summing up, and encore occur between the mid-50s to late 70s and older (Cohen, 2006).

Liberation. Liberation occurs when an individual's plans and actions are influenced by their "personal freedom to speak one's mind and do what needs to be done" (Cohen, 2006, p. 8). An individual within this stage may explore new hobbies or skills to occupy their free time, especially after retirement. Research has shown that retired individuals may neglect to expand upon or attend to their existing interests or skills and/or discovering new skills (Hannemann,

2006). This neglect is due to the social, developmental, and financial changes that come with retirement, rather than the aging process itself (Hannemann, 2006).

Summing up and encore. When summing up occurs, an individual's actions may become influenced by the desire to find a larger meaning to their life as they "sum up" what has happened up to that point (Cohen, 2006, p. 9). Much like Erikson's stage of ego integrity versus despair, individuals within this stage are motivated to resolve any lingering conflict and share their wisdom and life experiences. Then, during the encore phase, plans and actions become influenced by the desire to continue attending to unfinished business while restating and reaffirming major themes in one's life (Cohen, 2006, p. 9). The various needs and desires of the later life stages can be accomplished by working towards feelings of mastery and empowerment. These feelings provide a sense of control that encourages further exploration (Cohen, 2006).

The developmental theories of later life theorized by Erikson, Cohen, and Peck involve themes of self-examination and perspective. Erikson believed that personal identity and interpersonal attitudes evolve continually from birth to death as individuals face different crises or developmental tasks in each stage (Broderick & Blewitt, 2015, p. 11). Cohen (2006) stated that acknowledging the existence of a problem in each of these stages means simultaneously acknowledging the possibility of a solution (p. 7). All three theorists explored various components and found life review to be fundamental to development in later life. Life review is the structured and systematic process of evaluating one's life and lived experience (Butler, 2002).

Types of Memories

Autobiographical memory is a cognitive function that is significant in regard to one's sense of self and social interactions throughout the life span (Broderick & Blewitt, 2015, p. 563).

Put simply, this is “the remembered self” that serves as representations of who an individual has been at various points of their life (Broderick & Blewitt, 2015, p. 563). The remembered self is made up of several long-term memory systems, including episodic memory, semantic memory, and procedural memory. Episodic memory is used to recall specific experiences, semantic memory is used to remember a known fact, and procedural memory is used to remember how to do something (Broderick & Blewitt, 2015, p. 563).

Typically, the strength of a memory declines as more time passes. However, memories that have occurred within “the bump” or the “reminiscence bump” are produced more than memories from other eras. The bump includes memories of the self from the young adult period (from 18-22 years old) that are produced more frequently than predicted based on recency (Broderick & Blewitt, 2015, p. 566). Flashbulb memories are **“**recollections that are especially vivid and personally relevant” that can be used to explore autobiographical memory. Studies have shown that flashbulb memories are most often associated with memories that occurred in the bump era (Broderick & Blewitt, 2015, p. 566). When adults are asked to discuss memories that are important to them, they draw from memories that occurred in young adulthood more often than other eras.

Approaches for Treating Dementia

Exercise, diet, smoking, cardiovascular disease, cholesterol, diabetes, and mild cognitive impairment could all be related to the development of dementia; therefore, healthy lifestyle choices can help with prevention, especially during middle adulthood (“Does Someone You Know Have Dementia?,” n.d.). Preventative measures include reducing smoking, alcohol abuse, and recreational drug abuse; memory-training activities; staying physically and socially active; eating a healthy diet; maintaining a regular exercise routine; getting adequate, quality sleep;

adequately managing stress; managing health problems such as high cholesterol, diabetes, and high blood pressure ("Does Someone You Know Have Dementia?," n.d.). At this time, there is no cure for dementia and most dementias cannot be slow or reversed ("Does Someone You Know Have Dementia?," n.d.). Once an individual is diagnosed with some form of dementia, medication and therapy might become necessary treatments to manage symptoms.

Psychopharmalogical interventions. Five U.S. Food and Drug Administration approved drugs are used to improve and alleviate symptoms, depending on the type of dementia ("Does Someone You Know Have Dementia?," n.d.). These drugs, however, demonstrate only "mild effectiveness" in treating the symptoms of dementia (Chancellor et al., 2013, p. 1). Pharmacological treatments are typically effective for 6-12 months and benefit about half of the participants (Alzheimer's Association, 2012; Birks, 2006; Cowl & Gaugler, 2014). Side effects of these medications include nausea, dizziness, vomiting, slowed heart rate, and diarrhea ("Treatments for Dementia, n.d.).

Reversible dementias, such as dementia caused by vitamin B12 deficiency and pernicious anemia, can be treated with medication that addresses the deficiency in the brain. Vitamin B12 supplements treat pernicious anemia; hormonal supplements treat hyperthyroidism, hypothyroidism, or other imbalances; selective serotonin reuptake inhibitors (SSRIs) or other antidepressants treat symptoms of depression that may mimic dementia; and antibiotics or medications can be used to treat brain infections such as encephalitis or meningitis ("Treatments for Dementia," n.d.).

Dementias with irreversible symptoms are managed with medications that reduce the effects of dementia. These medications include cholinesterase inhibitors, glutamate inhibitors, and medications for managing mental health, mood, and behavioral issues ("Treatments for

Dementia, n.d.). Though these drugs improve some behavioral and psychological symptoms, and improve quality of life for individuals with dementia and their caregivers, more effective treatment that can be maintained long-term is needed for these individuals.

Therapy. Well-being, day-to-day functioning, and overall mood can be improved with therapy ("Treatments for Dementia," n.d.). Because depression and anxiety are often comorbid diagnoses of dementia, professional counseling and a strong support system are integral to improving and overall wellbeing for an individual with dementia ("Treatments for Dementia," n.d.).

Cognitive training. Cognitive training (CT) is used to address cognitive performance in older adults and comprises techniques for cognitive training such as puzzles, reading and verbal drills, and reasoning exercises (Alders Pike, 2016, p. 274). CT targets episodic memory, inductive reasoning, and visual search and identification (Alders Pike, 2016, p. 274). This form of therapy has been found to improve memory and a provide a sense of personal control for up to 5 years following initial training interventions (Alders Pike, 2016, p. 274).

Cognitive stimulation therapy. Cognitive stimulation therapy (CST) can increase memory and reasoning skills for individuals with mild to moderate dementia ("Treatments for Dementia," n.d.). This type of therapy involves training memory, language ability, and problem solving skills in order to improve the cognitive skills of individuals with dementia. Cognitive skills include how the brain thinks, learns, remembers, problem solves, and communicates (Comas-Herrera & Knapp, n.d., p. 1). CST has been shown to improve QoL over 14 sessions of structured 45-minute group therapy sessions (Comas-Herrera & Knapp, n.d., p. 1). These sessions occur twice a week over a 7-week period. Each session focuses on a different topic, through warm-up activities, songs, and a "reality orientation board" are used to provide

continuity from one session to the next (Comas-Herrera & Knapp, n.d., p. 1). The "reality orientation board" included information about the group and details including date, time, place, and weather. Memory is "trained" through the following activities: discussing current news stories, listening to music or singing, playing word games, and/or doing a practical activity such as baking (Comas-Herrera & Knapp, n.d., p. 2).

Behavioral therapy. Anxiety, aggression, depression, wandering, and insomnia can be treated with behavioral therapy ("Treatments for Dementia," n.d.). This type of therapy is usually administered by qualified family members or loved ones of individuals with dementia, and has been found to be twice as effective as antipsychotics for treating these symptoms ("Treatments for Dementia," n.d.). It involves targeting unwanted behaviors by tackling the triggers of each behavior ("Treatments for Dementia," n.d.). Behavioral therapy strives to alleviate and provide outlets for unwanted behaviors rather than relying on medication to treat such symptomology.

Other dementia therapies. Due to the number of causes, forms, and symptoms of dementia, other types of therapy have been developed and used to treat dementia on a situational basis. These include reality orientation therapy, validation therapy, and Montessori-based treatment. Reality orientation therapy aims to reduce confusion and disorientation that individuals with dementia often experience. Orienting information about time and location is provided several times throughout each day ("Treatments for Dementia," n.d.). Validation therapy involves discussion and acceptance of the ideas and values of individuals with dementia. Positive communication and stress reduction are goals of this type of therapy ("Treatments for Dementia, n.d.).

Montessori-based therapy has been used to provide individuals with dementia a social, interactive environment with the hope of soothing and encouraging active mental engagement

("The Montessori Method: Does It Help Dementia Patients?," n.d.). Though this method was originally developed to educate children between the ages of two and six, it has been found to actively engage the mind of individuals with dementia through providing an environment in which they can utilize each of their five senses to promote cognitive functioning ("The Montessori Method: Does It Help Dementia Patients?," n.d.). Montessori-based therapy utilizes creative activities such as artistry and making music to ground each patient and delay their symptoms from worsening ("The Montessori Method: Does It Help Dementia Patients?," n.d.). This is done in a group setting so that patients can collaborate, engage in the environment as a group, and share their thoughts and experiences with others ("The Montessori Method: Does It Help Dementia Patients?," n.d.).

Art Therapy and Dementia

Art therapy is "an integrative mental health and human services profession that enriches the lives of individuals, families, and communities through active art-making, creative process, applied psychological theory, and human experience within a psychotherapeutic relationship" (The American Art Therapy Association, 2017). Regardless of artistic skill or experience, art therapy is "an effective means of providing therapeutic care to older adults" (Alders, 2009, 2012; Alders Pike, 2016; Stewart, 2004). For older adults with dementia, in particular, art therapy has been found to improve cognitive functioning by stabilizing emotions (Masazumi, Yuko, & Shin, 2004). Though individuals with dementia become increasingly disoriented as the disease progresses, art media cultivates engagement with color and texture (Stewart, 2004, p. 154). According to Percoskie (1997), art therapy also allows for an environment of "primitive empathy" while individuals regain autonomy. Through art therapy, individuals with dementia

can regain a sense of personal freedom, empowering them to recognize their own control (Wald, 1989).

Research supports the use of art therapy in treating depression, isolation, cognitive impairment, as well as AD and other dementias in older adults (Alders Pike, 2016, p. 273). Individuals with untreated cognitive impairment are 2.8 times more at-risk for AD (Manly et al., 2008). Alders Pike (2016) found that in addition to naturally incorporating CT strategies such as episodic memory, art therapy has the potential to work beyond the cognitive goals addressed in CT to address emotional goals (p. 274). Furthermore, art therapy "often incorporates exercises of choice, interpretation, and meaning construction to cultivate visual search and identification skills in a practical and straightforward manner" (Malchiodi, 2006).

Stewart (2004) found that alternative means for expression are useful for individuals with dementia as they gradually lose their ability to communicate verbally (p. 154). Four case studies featured the art therapist as a "provider" for older adults with dementia living in nursing homes (Stewart, 2004, p. 150). Visual data was collected to support the use of artmaking as a treatment for individuals with dementia. Stewart's participants were active and pursued human companionship. Though confusion and loss of cognitive skills occurred more over time, the participants continued expressing themselves through art (Stewart, 2004, p. 154). The creative process fostered personal relationships and positive responses to encouragement, art media, and a safe environment that was provided.

Setting and materials. Riley (2001) recommended that a consistent environment should be provided for individuals with dementia (p. 168). External stressors should be reduced, therapeutic opportunities should be based on directives that are simple and clear, and the art therapist should be flexible and responsive (Riley, 2001, p. 168). In addition, a group art therapy

setting emphasizes social exchange; interpersonal engagement can promote a sense of familiarity and trigger memories which can lead to personal storytelling. Duncan (2013) also outlined three main objectives in art therapy for people with AD, in particular: offer choice, reduce anxiety, and promote dignity (p. 270-271). Materials such as paper, markers, colored pencils, oil pastels, chalk pastels, collage, and textured items can be used to provide sensory stimulation and strengthen the ego (Duncan, 2013, p. 273). Chancellor et al. (2013) found that watercolor is often used with individuals with AD (p. 6). But, if the disease is not yet severe, providing media options allows for opportunities to exercise personal choice and control (Chancellor et al., 2013; Duncan, 2013).

Individuals with dementia require promoted concentration that a piece of paper, drawing material, and topic can provide (Wald, 1989, p. 215). The concentration supported by art therapy can foster a sense of accomplishment and motivation. Nevertheless, the art therapist should be aware of precautions related to this population. For instance, adaptations to the art making process should be made to support the severe functional, visual, and perceptual deficits that individuals with dementia might have. Pre-cut images should be provided for collages, watercolor should be pre-moistened, separate paint brushes should be provided for each color of paint, and boundaries around the paper may be necessary (Wald, 1989, p. 216). If an individual with dementia is unable to start drawing on their own, providing a shape such as a squiggle or circle can assist the individual develop their own design or picture (Wald, 1989, p. 217). Additionally, providing themes that trigger reminiscence can be helpful when working with this population. A topical theme such as “School Days” or “Special Occasion” can assist individuals with dementia as they connect with past events (Wald, 1989, p. 217).

After conducting 17 consecutive weeks of 45-minute individual art therapy sessions with a female in her late 80s who had been diagnosed with late-stage Alzheimer's disease, Tucknott-Cohen and Ehresman (2016) determined that thick artist paper, outlined mandalas, pens, pencils, crayons, and bingo magic markers were suitable materials for the age, symptomology, and disease progression of this participant. It was concluded that each case is unique, especially due to varying degrees of neural degeneration, stages of disease progression, and personality features (Cohen & Ehresman, 2016, p. 43).

Stallings (2010) conducted a qualitative case study that utilized a collage assessment with three subjects. Due to impaired cognitive and verbal abilities, the use of collage in art therapy is suggested as a means of reminiscence for individuals with dementia who may not be able to do so otherwise (Stallings, 2010, p. 136). The participants created collages that were often reflective of current and past life experiences (Stallings, 2010). Collage was found to be a useful tool for promoting reminiscence, expression, and an alternate means of communication for individuals with dementia. Kelley (2017) used collage and gestalt story stems in a narrative approach to life review with older adults. Five subjects were provided oil pastels, chalk pastels, colored pencils, markers, and collage materials. Kelley (2017) documented their choices over six sessions with each individual. Collage was found to be the most chosen material for this age group, followed by colored pencils (Kelley, 2017, p. 32). Kelley (2017) reported that collage was used 15 times by the five subjects (see Table 1).

Table 1

The Average Use of Materials

Material	# of times used	Percentage
Collage	15	60%

Markers	6	24%
Colored Pencils	5	20%
Chalk Pastel	3	12%
Oil Pastel	1	4%

Note. Reprinted from *A Narrative Approach to Art Therapy for Life Review as a Means to Increase Mood in an Elder Community*, by E'lisa Kelley. Reprinted with permission.

Seifert and Baker (2002) also used collage throughout a biweekly activities program with seven residents in a long-term care facility. The participants were aged 83-99 years and had all been diagnosed with "probable Alzheimer's disease" (Seifert & Baker, 2002, p. 6). Each collage's compositional complexity and asymmetry were measured over the course of three years (Seifert & Baker, 2002, p. 3). Participants were provided with sheets of stickers appropriate to the current holiday or season, as the sessions typically fell around holidays celebrated by the Christian facility. It was hypothesized that asymmetry and complexity would become less evident in each participant's artwork as their dementia progressed (Seifert & Baker, 2002, p. 5). The quantitative data collected from this longitudinal study showed a decrease in complexity, and no significant change in asymmetry. Seifert and Baker (2002) concluded that creating artwork with individuals with dementia is valuable in assessing perceptual and cognitive functioning over time (p. 13).

The Expressive Therapies Continuum. According to Alders Pike (2016), the benefits of art therapy are in the expressive components rather than the visual-motor act of art making or copying images. Vija Lusebrink and Sandra Kagin developed the Expressive Therapies Continuum (ETC), which involves hierarchical levels of knowledge that are used to process information in the brain. Media interactions are organized "into a developmental sequence of

information processing and image formation from simple to complex" (Hinz, 2009, p. 4). Art media that are more fluid, like paint, are likely to evoke emotion; while more solid or resistive media, like colored pencils or collage, are likely to evoke internal structure while an individual creates (Hinz, 2009, p. 30-31).

The first three levels are "bipolar" or "complementary" (Hinz, 2009, p. 5). The lowest level of the ETC is the Kinesthetic/Sensory level, followed by the Perceptual/Affective level. Of the first three levels, the Cognitive/Symbolic level is the most developmentally sophisticated (Hinz, 2009, p. 9-11). The Creative level is the fourth level of the ETC, and can occur at any of the first three levels, representing the integration and functioning of these levels (Hinz, 2009, p. 5). Each level of the ETC is made visible by graphic indicators in the artwork (Alders Pike, 2016; Hinz, 2009; Kagin & Lusebrink, 1978). This framework can be used to track progress and better understand an individual's level of functioning by systematically stimulating the brain's structures and functions (Alders Pike, 2016, p. 273).

The art products created by individuals with dementia indicate a reverse developmental process as the disease progresses (Ahmed & Miller, 2003). Individuals with dementia may experience this reversal in developmental hierarchy through the levels of the ETC (Hinz, 2009; Killick, 1997; Lusebrink, 1990; Stewart, 2006; Wald, 1984; Zaidel, 2005). Early on, these individuals are capable of sophisticated thought processes and complex art projects. However, as they progress through the stages of dementia, individuals may regress to the Perceptual/Affective level of the ETC (Hinz, 2009, p. 13). In the later stages of dementia, fragmentation of images and lack of formal representation may occur. At this point, individuals with dementia regress to the Kinesthetic/Sensory level of the ETC (Hinz, 2009, p. 13).

Ahmed and Miller (2003) reported a loss of "visuoconstructive" ability as individuals with AD experience the deterioration of their spatial abilities. Cognitive functioning, including memory, decreases as an individual ages. This occurs more rapidly in individuals with dementia. The Cognitive component of the ETC is often used in treatment for these individuals in the hopes of heightening mental functioning (Hinz, 2009, p. 125). The Sensory component can also assist in reconstituting memory and cognitive functioning in individuals with AD and other dementias (Hinz, 2009, p. 76).

Past studies. The following art therapy studies were conducted to demonstrate improved QoL for individuals with dementia, as well as research that supports the use of art therapy groups with this population.

***Quality of life*.** The symptoms associated with each stage of dementia have been found to diminish the QoL of these individuals (Chancellor et al., 2013). In her systematic literature review of previous art interventions; including dance/movement, music, drama, visual arts, and other activities; Beard (2011) found that previous art therapy studies have focused on treating undesirable symptoms rather than enriching the lives of individuals with dementia. However, art therapy can be used to increase QoL in addition to providing general relaxation and wellness (Beard, 2011, p. 637). Most of the studies reviewed took place in skilled nursing facilities for individuals in advanced stages of dementia. Measurements and evaluations in these studies were made based on clinical scales, loose observations by staff members, and reports by care providers despite empirical support for individuals with dementia evaluating their own QoL (Beard, 2011, p. 638). Self-reports by individuals with dementia were not often used according to Beard's review of the literature. Beard (2011) recommended enriching the lives of individuals with dementia by reframing dementia altogether.

In another review of 112 creative arts therapy articles by Cowl and Gaugler (2014), 39 studies used art therapy. The duration of each creative arts therapy session ranged from 10 minutes to seven hours, with occurrences ranging from one-time, single-day participation to regular, monthly, or weekly participation over three years; follow up ranged from 0-24 weeks post-therapy (Cowl & Gaugler, 2014, p. 297). Outcomes measured in these studies included functionality, self-expression, socialization, engagement, mood, agitation, ability to create aesthetically pleasing images, apathy, sociability, creative expression, encouragement, sharing of life experiences, cognition, vitality, QoL, activities of daily living, caregiver burden, acceptance of loss, depression, mental-emotional health, well-being, behavior, communication, wandering, personal needs, verbalization, cognitive stimulation, engagement, behavior, family relationships, self-esteem, anxiety, engagement, interest, pleasure, aggression, affect, procedural skills, memory, compositional asymmetry, complexity of artwork, audience view of individuals with dementia, participation, focus, expressions of pleasure, functionality, self-transcendence, motivation, self-autonomy, physical and psychosocial well-being, and lifestyle patterns.

The findings suggested that creative arts therapy, in general, is effective for treatment of behavioral and emotional symptoms of AD and other dementias. Cognitive decline was not improved by creative arts therapy (Cowl & Gaugler, 2014, p. 297). Of the 112 creative arts therapy studies, 63 included quantitative results. At least one measured outcome was found to have improved significantly ($p < 0.05$) in 46 of the 63 quantitative studies (Cowl & Gaugler, 2014, p. 297). Statistically significant changes were also reported by 12 of the 14 randomized control trials (RCTs) reviewed by Cowl and Gaugler (2014), further supporting the use of creative arts therapy to treat AD and other dementias. Agitation, behavior, depression, and mood

were found to have improved significantly by the majority of studies measuring these symptoms (Cowl & Gaugler, 2014, p. 297).

Of the 39 art therapy studies reviewed by Cowl and Gaugler (2014), one quantitative study conducted by Hattori et al. (2011) measured QoL. Hattori et al. (2011) conducted a controlled study on the cognitive and psychological effect of coloring and drawing with thirty-nine patients with AD (p. 431). These patients showed slightly decreased cognitive functioning prior to being randomly selected for the art therapy and control treatment groups. The art therapy group was asked to color abstract patterns with pastel crayons or water-based paint. They also created line drawings of familiar objects such as flowers, children, and fish (Hattori et al., 2011, p. 432). The control group participated in learning therapy using calculation. These interventions were completed once weekly for 12 weeks.

Several tests and measures were used to measure the participants' mental functions, behavioral impairment, QoL, activities of daily living, and caregiver burden. These tests included the Mini-Mental State Examination (MMSE), Wechsler Memory Scale revised (WMS-R), Dementia Behavior Disturbance Scale, Geriatric Depression Scale (GDS), Apathy Scale (Japanese version), and Short Form (SF-8) (Hattori et al., 2011, p. 433). The control group showed improvement in the MMSE Score, while the art therapy group showed significant improvements in the Apathy Scale and SF-8 (Hattori et al., 2011, p. 434). QoL, in particular, was evaluated using the Physical Component Summary (PCS-8) and Mental Component Summary (MCS-8) of the SF-8. Hattori et al. (2011) credited interventions that involve "familiar" persons, places, or objects as possible contributions to these improvements (p. 434).

Kim et al. (2016) completed an empirical, quantitative study that showed improvements in QoL for 32 individuals in comparison to a control group of 21 individuals. The cognitive

programming group received one hour periods of multidomain cognitive stimulation including art, music, recollection, and horticultural therapy in conjunction with routine pharmacotherapy. This was repeated five times per week over a period of six months. During this time, the control group received pharmacotherapy only. The Mini-Mental State Examination, the Korean version of Consortium to Establish a Registry for Alzheimer's Disease, Clinical dementia rating scales, and the Korean version of the QOL-AD were used pre- and post-test to evaluate cognitive ability (Kim et al., 2016, p. 191). After six months, cognitive abilities were compared between the cognitive programming group and control group. Pre- and post-test measures of QoL were used to evaluate cognitive ability. Individuals that actively participated in the cognitive intervention showed maintained cognitive function as evidenced by verbal fluency and word-list recognition (Kim et al., 2016, p. 194).

A pilot study conducted in Taiwan by Tai et al. (2016) tested the effects of multiple training modalities in patients with AD. Cognition, neuropsychiatric symptoms, caregivers' burden, and QoL were all measured. The modalities used were selected based on familiarity for that culture: Tai Chi, calligraphy, and drawing are the three most widely practiced leisure activities in Taiwan. Each modality was given one hour per week over a six-week period. The Traditional Chinese version Mini-Mental Status Examination, Cognitive Assessment Screening Instrument (CASI), Neuropsychiatric Inventory and the Neuropsychiatric Inventory Caregiver Distress Scale, and the Clinical Dementia Rating Sum of Boxes scale were used pre- and post-test and showed improved scores for the experimental group (16 individuals) in contrast to the comparison group (8 individuals). The World Health Organization Quality of Life-BREF (WHOQOL-BREF) and Zarit Caregiver Burden Scale measured QoL and caregivers' burden. Tai et al. (2016) reported higher scores in the orientation domain of the CASI and psychiatry

domain of the WHOQOL-BREF for the experimental group (p. 2846). Caregivers' distress significantly decreased for the experimental group, but not the comparison group (Tai et al., 2016, p. 2843).

Lancioni, Perilli, Singh, O'Reilly, and Cassano (2011) assessed the effects of a picture coloring activity in comparison to music listening on the wandering of an 85-year-old male with severe AD and mild depression. He could not speak, but could understand simple verbal commands, and typically remained detached and isolated. Prior to this study, the participant spent the majority of each day engaged in wandering, which consisted of pacing and lapping the living room of the day centre that he attended. Wandering was found to be consistent during the baseline condition, and reduced to low or nearly 0% levels during the music condition and picture coloring activity (Lancioni et al., 2011, p. 242).

Another individual case was reported by Jones & Hays (2016). Hays used his extensive background in art therapy to personally apply his knowledge and skills to his own treatment (Jones & Hays, 2016). With a diagnosis of early onset AD at the age of 62, Hays worked to improve his own QoL as the disease advanced. This self-facilitated therapeutic process involved working with clay. Personal interviews and examples of Hays's work support the hypothesis that art making can improve QoL for individuals with dementia, specifically Alzheimer's-type. He experienced an increase in productivity and creativity despite simultaneously experiencing losses in memory and other abilities (Jones & Hays, 2016, p. 217).

Group work. As part of their systematic literature review of existing evidence for the use of creative arts therapies in treating individuals with AD and other dementias, Cowl and Gaugler (2014) explored the potential benefits of artistic interventions. They found that the creative arts therapies can provide a personal sense of control as well as social support, particularly in a group

setting (Cowl & Gaugler, 2014, p. 283). The social support, and the meaningful relationships developed within a group, have been found to improve prognoses for individuals with life-threatening illnesses such as dementia (Cowl & Gaugler, 2014; Doric-Henry, 1997; McFadden & Basting, 2010). Furthermore, several studies showed increased socialization among participants with dementia during and after group therapy sessions (Cowl & Gaugler, 2014; Gaugler, 2010a; Pollack & Namazi, 1992; Weiss, Schafer, & Berghorn, 1989).

Johnson, Lahey, and Shore (1992) encourage the use of art in therapeutic group work. They emphasize the "loss of self" experience that typically occurs as a patient with AD begins to lose their self-concept, leading to a fragmented, frightening view of the world (p. 270). The use of art making tasks in groups has been found to preserve and maximize this eroding sense of self. Nonverbal modalities utilize the sensory, affective experiences of participants. Reminiscence, self-expression, and socialization have been encouraged in such groups (Johnson et al., 1992, p. 271).

Wald (2003) found that group art therapy that emphasizes a sensory-rich experience can assist with the isolation and depression that many individuals with AD and other dementias experience. Sensuous materials like rich fabrics, potpourri and spices, and nostalgic music, can be used to evoke individual memories (Hinz, 2009, p. 245). A group therapy setting provides an opportunity for individuals to share their memories with one another, potentially enhancing long-term memory retrieval in other members of the group (Hinz, 2009, p. 245).

Judith Wald. Judith Wald conducted multiple qualitative art therapy studies throughout her career as an art therapist in New York. Ranging from pencil drawings to group art therapy, Wald's work has resulted in improved anxiety, diminished psychosis, increased pleasure, improved coping, and improved self-esteem for individuals with dementia (Chancellor et al.,

2013, p. 7). In her studies, psychopharmacological treatments had only provided short-term relief, so Wald noted that art therapy is supportive, not necessarily curative (1989, p. 215).

Case study. In 1993, Wald reported an individual case in which art therapy was used to provide an 80-year-old patient with mixed dementia opportunities to improve self-esteem, grounding, boundaries, an emotional outlet, and a means of communicating the realities of his disease (p. 88). The patient had been brought to a rehabilitation center due to complaints of memory impairment and disorientation one year after sustaining a head injury with concussion in a car accident (Wald, 1993, p. 88). Prior to treatment, the patient had become withdrawn, uncommunicative, agitated, and increasingly forgetful. His wife also reported episodes of nocturnal confusion, odd behaviors such as abruptly leaving the phone, and disorganization in activities of daily living. Throughout art therapy treatment, the patient drew houses that sometimes disguised his impairments, while his drawings of people were indicative of regression, depression, and psychotic ideation (Wald, 1993, p. 88).

Over time, the patient's drawings became bizarre and simplified. As his physical symptoms worsened, Wald (1993) noted changes in his artwork and artmaking process (p. 93). The patient originally initiated his own drawing ideas, but later took them from others (Wald, 1993, p. 92). The mood of the subjects of his drawings also changed. Simplified smiling mouths turned downward, and the patient identified feelings of sadness not for himself, but for individuals in his surroundings that appeared happy (Wald, 1993, p. 93). Months before the patient passed away, he was placed in a skilled nursing facility due to his increased regressed and disturbing behavior. He continued making art twice a week, including drawings with multiple sad mouths, buttons, and stripes on the body. Wald (1993) noted that these features might have been indicative of depression, loss of speech, dependency needs, and possible feelings of

imprisonment (p. 94). Unique to this case were the autopsy results that supported correlations between behavioral, clinical, and medical findings of mixed dementia (Wald, 1993, p. 94).

Goals, precautions, and recommended activities. Wald (1989) emphasized offsetting losses of intellect, memory, speech, and physical abilities by providing art therapy activities within a success-based framework (p. 215). The art therapist should provide an environment that is "geared for success by eliminating distraction, minimizing functional deficits, and giving encouragement and definition to attempts at artistic expression" (Wald, 1989, p. 215). This art therapy space is an area in which individuals with dementia can excel, therefore boosting their self-esteem. Furthermore, by encouraging reminiscence and life review through a nonverbal, visual means of communication in a group setting, individuals with dementia can escape personal isolation and become part of an encouraging environment (Wald, 1989, p. 215).

CHAPTER III

METHODS

Design of Study

The purpose of this study was to measure the QoL of participants pre- and post-group art therapy intervention. The study used the QOL-AD for its pre- and post-test intervention format without a control group. Major variables included the QoL scores (composite of participant and caregiver ratings) (dependent variable) and introduction of the art therapy group (independent variable). Caregiver-rated instruments can be useful when working with individuals who may not be able to "accurately remember or assess their behavior or mental status" (Chancellor et al., 2013, p. 6). The QOL-AD rates not only the participant's own perspective of their QoL, but also the caregiver's perspective. The participant and caregiver individually completed the 13-question interview, and the difference between pre- and post- QOL-AD scores were used to identify whether a change in QoL occurred as a result of participation in the study.

In addition, the researcher documented each subject's material choices and verbalizations on the data collection sheet (see Appendix E). It was hypothesized that there would be an increase in QoL scores after participation in the 6-week art therapy group. An increase in overall score pre- to post- participant and pre- to post- caregiver will indicate this increase in QoL. This study is approved by Indiana University's Institutional Review Board (IRB), and received administrative approval from Joy's House Adult Day Service.

Location and Time Period of Study

The study took place in an adult day service in a metropolitan area during February 2018-March 2018. The study participants and caregivers completed the informed consent and QOL-AD the week before the art therapy group began. Then, participants engaged in a one hour art

therapy group for six weeks. Following the six-week group, the study participants and caregivers completed the QOL-AD again.

Subject Type and Source

Participants were guests at the adult day service center. They were identified by the facility although no information about stage and progression of illness was provided. This may result in varying levels of functioning within the group. Session information from each participant included the material choices, verbalizations, and amount of time participated (see Appendix E).

Recruitment and Enrollment Information

The subjects were recruited for the study by the researcher and the adult day service's Project Manager. Flyers were posted and distributed at the center (see Appendix C). Individual phone calls were made to individuals with dementia and their caregivers in the weeks prior to the study. Individual selection and recruitment was finalized based on subject inclusion and exclusion criteria. The Project Manager reported an average of 25 individuals attending the center daily. Therefore, it was estimated that the number of participants would range from 5 to 10 individuals.

Subject Inclusion Criteria. Subjects must have dementia to be included in the study. Each subject may exhibit traits related to the first five stages of AD and other dementias. These may include occasional lapses in memory, getting lost easily, forgetting the names of loved ones and friends, losing or misplacing objects, disorientation, and trouble making decisions ("The Seven Stages Of Dementia," n.d.). The Capacity Assessment Record was used to determine each subject's capacity for consent prior to participation in the study (see Appendix D).

Subject Exclusion Criteria. Individuals who were unable to provide informed consent and/or do not have a caregiver to provide informed consent were excluded from the study. Individuals who exhibit traits from stages six and seven of AD and other dementias were also excluded. These may include delusional behavior, obsessive behavior and symptoms, anxiety, aggression, agitation, loss of willpower, and loss of motor or speech skills. Also, anyone without a dementia diagnosis was excluded.

Investigational Methods and Procedures

Instrumentation. Over the course of six weeks, participants created an ongoing life review project. This project utilized the success-based framework recommended by Wald (1989, p. 217). Participants received an 18-by-24-inch piece of thick white artist paper pre-divided into six sections, one for each week of the study. The titles for each week were pre-written above each of the six sections (see Figure 1). These titles represent what Wald (1989) determined to be "important phases of life—'Childhood,' 'School Days,' 'Special Occasion,' 'Adulthood,' 'Work,' 'The Present'" (p. 217). The researcher provided an additional 18-by-24-inch piece of white paper on top of each participant's project. Each week, the section being addressed was cut from the top layer. This process served to provide a boundary around each section to assist participants in concentrating on one section at a time. However, participants were not verbally redirected if they worked outside of the section being addressed. When this occurred, the additional paper was removed after the session and another blank piece of 18-by-24-inch white paper was placed on top of that participant's project.

In addition to the 18-by-24-inch piece of thick white artist paper, participants choose from the following art materials: colored pencils, magic markers, pre-cut collage images, and glue sticks. The researcher documented weekly material choice by each participant (see

Appendix E). At the end of each session, participants were encouraged to share any memories that came up as they worked on that section. Their verbalizations were recorded on the data sheet (see Appendix E).

Childhood	**School Days**	**Special Occasion**
Adulthood	**Work**	**The Present**

Figure 1. The life-review project consisted of six life phases. Each phase was pre-written in the box of the corresponding week.

Informed Consent. Prior to participation in the study, each subject was presented two copies of the consent form (see Appendix A) and art therapy release form (see Appendix B). The researcher assisted each participant by reading the informed consent documents aloud before asking them to repeat in his/her own words their understanding of their participation in the study. Both consent forms were signed by the subject or caregiver, one of which was their copy to take home. The other copy was stored in a locked, secure file. To ensure each participant's or

caregiver's understanding, the rules and parameters of the study were reviewed at the beginning of each session.

Data Collection. The Quality of Life-Alzheimer's Disease (QOL-AD) was administered to each participant and caregiver individually before and after the six-week art therapy group. The researcher assisted participants by reading the pre- and post-test aloud. This measure takes an average of 10 minutes to administer, and is composed of 13-items that include domains of physical condition, mood, memory, functional abilities, interpersonal relationships, ability to participate in meaningful activities, financial situation, and global assessments of self as a whole and QoL as a whole (Ready & Ott, 2003, p. 5). Subjects can choose from 4-point multiple choice options (poor = 1, fair = 2, good = 3, excellent = 4), with scale scores ranging from 13 to 52 (Ready & Ott, 2003, p. 5). Final scores combine reports from subjects and their caregivers, and are weighted in favor of subject self-report.

Participants and caregivers completed the QOL-AD interview separately pre- and post-test. Afterward, the researcher combined the scores in favor of the participant's self-report. Each participant score was multiplied by 2, added to the caregiver's score, and then the composite was divided by 3 (Ready & Ott, 2003, p. 5). This was done for the pre- and post-test scores of each participant prior to data analysis.

Data Analysis. Physical analyses were run in the IBM Statistical Package for the Social Sciences 24 (SPSS 24). The Wilcoxon Signed Rank Test with a Bonferroni correction for multiple analyses were used. Descriptive statistics including mean and pre-/post-test changes of all participants were reported. Inferential statistics for the pre- and post-tests scores as well as domain comparisons for energy, mood, and self as a whole were calculated in SPSS 24. Then, the pre- and post-test scores were analyzed individually (participant scores and caregiver scores).

Possible Risks and Discomforts to Subjects

A risk of completing the survey is being uncomfortable answering the questions. There is also a risk of possible loss of confidentiality, though efforts were made to keep each participant's information confidential including assignment of participant numbers on the data collection forms.

Special Precautions to Minimize Risks or Hazards

Prior to completing the survey, participants were instructed to tell the researcher if they feel uncomfortable or do not want to answer a particular question. Efforts were made to keep each participant's information confidential. The researcher maintained confidentiality of the participants by assigning participant numbers on the data collection forms. No information which could identify a participant was shared with the public and the information was securely stored. Information collected from subjects for this pilot study may be used for future research studies or shared with other researchers. If this happens, identifying information will be removed beforehand. Since identifying information will be removed, additional consent was not necessary.

For additional support if questions or concerns arose, participants were provided contact information for the researcher and the IU Human Subjects Office. If a participant wished to withdraw from the study, they could do so at any time. The researcher offered to help the participants withdraw from the study, as necessary. If a participant decided to withdraw, they no longer attended the weekly sessions.

Limitations and Delimitations

The limitations of this study included circumstantial influences that could have affected the pre- and post-questionnaire scores. For instance, weekly changes to each participant's routine

outside of the one-hour group could influence the pre- and post-test results. In addition, the small sample size of ten subjects does not allow the findings to be broadly generalized. External factors or challenges might have affected QoL while the researcher is not present. Dementia's effect on memory differed for each subject, but it is expected that those individuals with more severe dementia may not remember the researcher, the study, or a particular week's intervention.

Delimitations of this study include performing the research study at a single facility with a potentially small sample size and not including caregivers or individuals without dementia in the study.

CHAPTER IV

RESULTS

It was hypothesized that there would be an increase in QoL scores after participation in the 6-week art therapy group. The Quality of Life-Alzheimer's Disease (QOL-AD) provided a baseline measure of quality of life. The researcher anticipated that the findings would suggest that the supportive group art therapy setting improved QoL in the participants overall as well as in the domains of energy, mood, and self as a whole, as indicated by the QOL-AD measurement tool. The QOL-AD results showed an increase in QoL for five of the eight participants, supporting the original hypothesis (see Figure 2). The major findings were discovered when analyzing participant and caregiver pre- and post-test scores individually. The Wilcoxon Signed Rank Test with a Bonferroni correction for multiple analyses were used. The participant and caregiver pre- and post-test total scores and scores for the domain of self as a whole were found to be approaching significance.

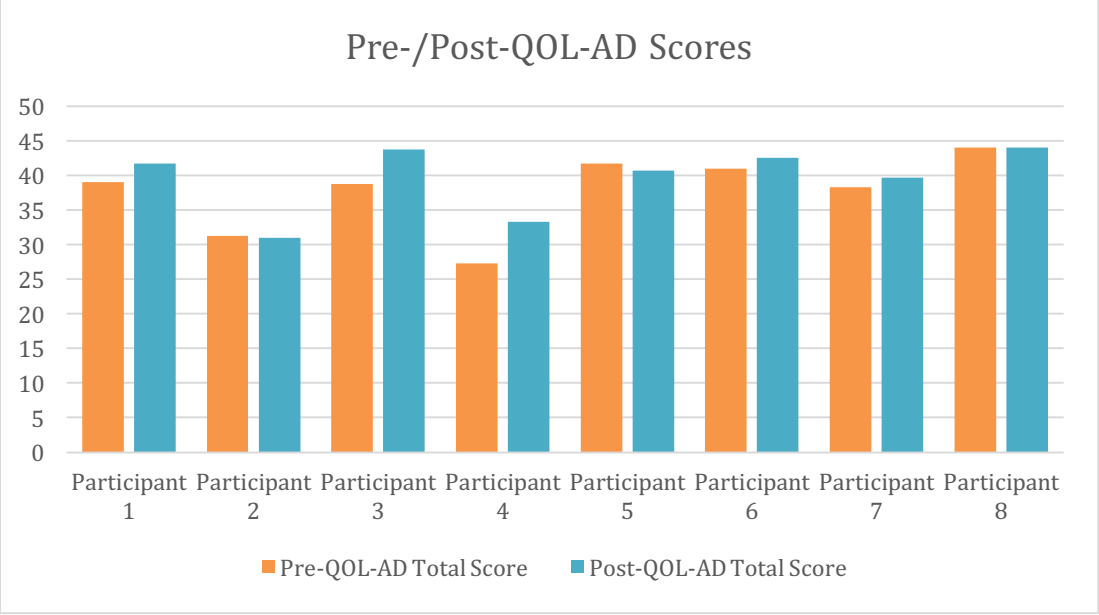

Figure 2. Each participant and caregiver completed the QOL-AD pre- and post-art therapy group. Their combined scores were compared to determine whether a change occurred.

Attendance

Ten individuals were selected to participate in the study and completed the informed consent and pre-test. After recruitment concluded, eight individuals participated in the 6-week art therapy group and completed the post-test. The average attendance over the 6-week art therapy group was 4.6 sessions (3-6 sessions). Table 3 tracks the attendance for each participant in the study. Those participants who attended group are indicated with a star in their row.

Table 2

Art Therapy Group Session Attendance

Participant	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	% of Groups Attended
1		*	*	*	*	*	83%
2	*	*		*	*	*	83%
3	*	*	*	*	*	*	100%
4	*		*	*	*		67%
5	*	*		*	*		67%
6	*	*	*		*	*	83%
7	*	*		*	*	*	83%
8	*	*				*	50%

* - Indicates attendance at group

Materials Used

Participants created a life review project based on Wald's success-based framework. They were provided 18-by-24-inch piece of thick white artist paper, pre-cut collage images, glue sticks, markers, and colored pencils. The average use of materials was found by averaging the

number of times a material was used by the number of sessions attended (see Table 4). A total of 37 sessions were attended by the eight participants when considered individually (see Table 3). Participants were not limited to one material per session, therefore all materials used in a single session were recorded. The results show that collage was used most often, followed by colored pencils. The pre-cut collage images and glue sticks were used by all eight participants in every session attended. One participant used colored pencils during the sixth session.

Table 3

The Average Use of Materials

Material	# of times used in group	% of sessions
Collage	37	100%
Markers	0	0%
Colored Pencils	1	2.7%

Post-test Scores

The difference in pre- and post-QOL-AD scores showed an increase in QoL for participants 1, 3, 4, 6, and 7, with the increase in combined scores ranging from 1.4-6 (see Figure 2 and Table 6). Participants 2 and 5 showed a decrease in QoL, with the decrease in combined scores ranging from 0.3-1 (see Figure 2 and Table 6). Participant 8 showed no change in combined QOL-AD scores, though the participant stated that he was “a liar” and gave himself a rating of 4-Excellent for all 13 domains during both the pre- and post-QOL-AD (see Figure 2 and Table 6).

Table 4

Pre-/Post-test Scores

Individual	Raw Pre-test Score	Pre-test Combined Score	Raw Post-test Score	Post-test Combined Score
Participant 1	43	39	43	41.7
Caregiver 1	31		39	
Participant 2	34	31.3	33	31
Caregiver 2	26		30	
Participant 3	40	38.7	46	43.7
Caregiver 3	36		39	
Participant 4	26	27.3	34	33.3
Caregiver 4	30		32	
Participant 5	45	41.7	41	40.7
Caregiver 5	35		40	
Participant 6	41	41	44	42.5
Caregiver 6	41		39.5	
Participant 7	37	38.3	39	39.7
Caregiver 7	41		41	
Participant 8	52	44	52	44
Caregiver 8	28		28	

Domain averages were considered to determine pre- and post-QOL-AD changes by question using the self-score and caregiver-score. Because the QOL-AD provides a protocol for combining participant and caregiver total scores but not individual domain scores, each

participant's self-score was added to their caregiver's given score and divided by two. The difference for pre- and post-QOL-AD domain averages showed an increase in friends for six participants; health, mood, and fun for five participants; and energy and self as a whole for four participants (see Table 6).

Table 5

QOL-AD Domains

Question #	Domain
1	Health
2	Energy
3	Mood
4	Living situation
5	Memory
6	Family
7	Marriage
8	Friends
9	Self as a whole
10	Ability to do chores around the house
11	Ability to do things for fun
12	Money
13	Life as a whole

Table 6

Pre-/Post-test Changes by Domain

Participant	Increased	Decreased	No change
1	2, 3, 6, 8, 9, 10, 11	4, 12, 13	1, 5, 7
2	1, 2, 3, 7, 8, 9, 11, 13	4, 6, 10, 12	5
3	1, 2, 3, 4, 8, 10, 11, 12	5	6, 7, 9, 13
4	1, 3, 5, 6, 8, 9, 11, 13	4, 7	2, 10, 12
5	1, 4, 5, 8, 11	2, 3, 13	6, 7, 9, 10, 12
6	1, 2, 8, 9, 10, 12	3, 5	4, 6, 7, 11, 13

7	5, 13	3, 8, 9, 10, 12	1, 2, 4, 6, 7, 11
8	3, 7	6, 11	1, 2, 4, 5, 8, 9, 10, 12, 13

The Wilcoxon Signed Rank Test with a Bonferroni correction for multiple analyses were used to analyze the pre- and post-QOL-AD scores and domains of energy, mood, and self as a whole. Combined pre- and post-test scores were analyzed first, but no significance was found (pre-M = 37.66, post-M = 39.57, p = .063). Participant and caregiver pre- and post-test scores were then analyzed separately. The pre- and post-test total scores were found to be approaching significance (pre-M = 36.62, post-M, 38.78, p = .025). Out of the three domains analyzed, self as a whole was found to be approaching significance (pre-M = 2.53, post-M = 3.03, p = .023). Results for energy and mood were not significant.

CHAPTER V

DISCUSSION

Overview

The major findings in regard to challenges, data collection, Wald's method, and overall scores are discussed. The results of this human-subject study are then synthesized to formulate clinical applications.

Major Findings, Themes, and Outcomes

The QOL-AD provided a pre- and post-measure of quality of life. The researcher read each of the thirteen questions aloud for the participants and caregivers individually. An overall pre-/post-change was found when looking at individual scores (self-reported and caregiver-reported separately) and changes in the domain of self as a whole. These findings are congruent with past studies that also showed improvements in self-esteem for individuals with dementia (Chancellor et al., 2013, p. 1; Beard, 2011, p. 633). Autobiographical memories came up often for participants, and may have contributed to improvements in sense of self. This is congruent with Broderick and Blewitt's (2015) description of the "remembered self," and its inclusion of several long-term memory systems. As participants recalled specific experiences (episodic memory), known facts (semantic memory), and created each week (procedural memory), their remembered self influenced the artmaking and group processes, as evidenced by the imagery selected and stories told.

Of the six phases of life explored – "Childhood," "School Days," "Special Occasion," "Adulthood," "Work," and "The Present" – three occurred within "the bump" or the "reminiscence bump" from the ages of 18-22 years old. Consistent with findings that these memories are produced more frequently than predicted based on recency, these phases instigated

the most flashbulb memories from participants (Broderick & Blewitt, 2015). The most vivid and personally relevant stories came up during the weeks that "Special Occasion," "Adulthood," and "Work" were explored. Participants could tell stories about special occasions, such as weddings, that they were all able to relate to. They also found similarities in their adulthood and work experiences, as many of them grew up in the same era. High school and sports were also common topics for the group, as they discussed where people they went to school with are now, particularly individuals that have become famous and/or successful.

Regardless of artistic skill or experience, all eight participants were able to participate in the art therapy group. Despite the disorientation that occurs as dementia progresses, each participant engaged with the art media – particularly the pre-cut collage images and glue sticks. They became autonomous throughout the artmaking and storytelling process, with little to no help from the researcher and project manager. These observations are congruent with the findings of Alders (2009, 2012), Alders Pike (2016), Stewart (2004), and Percoskie (1997). The personal freedom and empowerment that the art therapy group provided these individuals is consistent with Wald (1989)'s use of art therapy to help individuals with dementia recognize their own control.

A consistent environment was provided by the researcher. The same room was used each session over the six-week study. The same materials were provided every week. And, the participant's project was placed where they had chosen to sit for the first session in the weeks that followed. The directive for each week consisted of using the materials provided to create images that represent the life phase recommended by Wald (1989). The consistent environment and simple directives correlate with recommendations made by Riley (2001). This appeared to

benefit the artmaking process, as the pre-cut collage images chosen by each participant were related to the life phase for each week.

Challenges. Each of the eight participants had different dementia diagnoses, progression, and symptoms. The researcher was not provided with additional details for each participant, but noticed that they were experiencing differing levels of memory loss and cognitive dysfunction. The majority of participants appeared to be in the middle stages of AD and other dementias – particularly stages 3 and 4 – as evidenced by getting lost looking for the bathroom, forgetting names or details, losing or misplacing objects, denial of symptoms (particularly during the informed consent process), and disorientation ("The Seven Stages Of Dementia," n.d.).

These differences made it difficult to meet the needs of the group as a whole. With the help of the project manager provided by Joy's House, the researcher was able to meet each participant where they were at – whether that meant bringing pre-cut collage images and other materials to the participant or assisting with placing and gluing the images. Some participants completed the project quickly (within 5-10 minutes of starting), left the room, and returned to ask if they had participated that week. The researcher chose to leave the artwork and materials out for each participant until the group session was over. If an individual returned, the researcher took them to their artwork and reiterated the discussion and memories that had previously come up for that person.

Data collection. There existed difficulties with recruitment, though eight participants were able to be a part of the study. Ten individuals originally completed the informed consent and pre-test process, but two dropped out of the study without informing the researcher. These two individuals did not attend any of the six sessions, so they were removed from the data collected. The researcher noted that several caregivers were unable to keep their appointments

for the pre- and post-tests, and had to reschedule one or more times. This made the recruitment process take longer than expected, though the researcher remained flexible in order to include as many participants as possible.

Although the researcher had initially planned to document time spent in the session and verbalizations made by each participant, it became apparent in the first week that documenting this for all eight participants would be difficult to achieve in addition to assisting them with the artmaking process. Had the group been divided into two groups of four participants, this part of the data collection would have been more feasible. The researcher chose instead to be present with the group, acting as a "provider" similarly to the four case studies completed by Stewart (2004). The pre- and post-QOL-AD scores were the primary source of data collection. General notes regarding verbalizations made by the participants in the group and caregivers during the pre- and post-tests were made. Common verbalizations made during the artmaking process included, "I can't draw!" when offered colored pencils and markers.

Wald's method. Wald's method provided a starting point for the participant's each week. However, little information was provided about the use of this method prior to the present study. Due to the lack of clarity in regard to implementing this success-based life review project, the researcher made adaptations as needed throughout the process. For instance, the additional piece of 18-by-24-inch white artist paper was used to provide a boundary around the section being worked on. The researcher observed five of the eight participants work outside of this boundary over the six-week group. Had the extra piece of 18-by-24-inch white artist paper not been placed on top of the project each week, the participants would have run out of room to create. At the end of the six-week group, the final project was presented to the participant and caregiver in addition to any layers that had been removed due to the overlapping that occurred.

Had a darker color of paper been used for the boundary layer, the participants may have been able to distinguish the foreground from the background layer. This stronger boundary is important for older adults, particularly those with dementia, due to their inhibited problem solving and planning skills, lapses in memory, and other cognitive impairments that develop as the disease progresses ("The Seven Stages Of Dementia," n.d.). These symptoms, along with the reversed developmental process that occurs as evidenced by the art products created by individuals with dementia, indicate the need for an updated version of this life-review project. Had the group consisted of individuals with early-onset dementia, they may have been able to distinguish the divided sections for each week. However, the individuals that participated in the present study appear to have been in middle stages of dementia, during which fragmentation of images and lack of formal representation can begin to occur. Regression due to dementia warrants the use of multiple pages, one for each week, rather than returning to the same project over the course of the group.

Though Wald's method limited the participants to one project over the six-weeks, other long-term art therapy projects that do not use the same paper week after week could be used. Similar phases of life could be explored, but on different sheets of paper each week. To provide the consistency that the researcher had anticipated with Wald's method, these papers could be compiled into a book and presented to the participant at the completion of the project. The phases recommended by Wald could be expanded to include prompts that the participants choose from, allowing for exploration of more phases of life. Or, story stems could be provided, like the gestalt phrases that Kelley (2017) used in her study.

Storytelling occurred often throughout the six-week group, as anticipated by Riley (2001). The phases of life recommended by Wald (1989) instigated the telling of stories. Each

phase acted as a prompt, which then served as a visual cue of what the participants were working on each week, like a gestalt phrase might have (Kelley, 2017). The verbal directive was supported by the written phase on each participant's paper. When the researcher and project manager were both assisting participants, the rest of the group was able to continue working with the help of the verbal and written prompts. The researcher found that phases such as "School Days" provided a wider range of exploration and storytelling than more specific phases, such as a particular year or age, might have. The participants verbally related to one another's stories and laughed together often. The pre-cut collage images appeared to aid in this storytelling process, as the images supported the verbalizations made about each week's theme. Because collage was used in 100% of the sessions attended by each individual, it is important to note that pre-cutting imagery representative of the older and younger selves is valuable when providing prompts that refer to different phases of one's life. The researcher provided imagery of children, teens, adults, and elders of several ethnicities. Imagery of nature, food, textiles, and other objects were also provided.

At the conclusion of each session, participants naturally conversed about the memories or stories that came up for them as they reflected on the prompt and artwork. Wald's description of this project did not specify what to do at the conclusion of each session, but this discussion appeared to support the group process. Providing additional structure for individual or group sharing would support such discussion. The researcher noted that participants typically paired up to share their stories, and shared with the rest of the group whenever they overheard and related to someone else's story. Pair sharing is supported by the natural occurrence of such discussion in the present study.

Scores overall. Five of the eight participants' combined QOL-AD scores increased after participating in the six-week group. Two participants' scores decreased, and one remained the same (see Figure 2). Though these changes exist, there is not yet a significant difference. It is important to note that only participant 3 attended all six sessions, which may have impacted the post-test self-reported and combined scores (see Table 2). Participant 8's self-reported, caregiver-reported, and combined post-test scores indicated no change, though they participated in the least amount of session (Weeks 1, 2, and 6) and refused to participate for three weeks (Weeks 3-5, see Table 2). Participant 2 and participant 5 participated in 4-5 sessions and reported a decrease of 0.3 and 1, respectively (see Figure 2 and Table 2). Increases in overall QOL-AD combined scores ranged from 1.4-6 (see Figure 2). Participant 3 reported the second highest increase, and attended all six sessions (see Figure 2 and Table 2).

Pre- and post-changes by domain were also considered. The difference for pre- and post-QOL-AD domain averages showed an increase in friends for six participants; health, mood, and fun for five participants; and energy and self as a whole for four participants (see Table 6). Interestingly, more positive domain changes were noted for participants 1-6 (5-8 domains increased) than participants 7-8 (two domains increased). It should be noted that participant 8 reported the same score of 4-Excellent for all 13 domains during both the pre- and post-QOL-AD, resulting in no change for the majority of his domains when averaged with the caregiver-rated scores (see Figure 2 and Table 6).

Although these scores are not yet significant, the researcher observed changes in each participant over the course of the six-week study. One participant that did not speak until the end of the first session verbalized more frequently with each subsequent session. Her caregiver reported similar results at home. Other participants engaged in this storytelling process,

supporting this participant's verbalizations and encouraging more as she progressed. Another participant selected primarily nature images, and was able to recall several memories from serving in the military. Though his wife, the primary caregiver that was interviewed pre- and post-test, was out of the country during the six-week group; this participant still experienced one of the most notable changes in self-reported scores, and became more mobile and verbal as the group progressed.

The participant that called himself a "liar" during the pre- and post-tests initially refused to participate in the art therapy group. Though he had completed the informed consent and pre-test, he repeatedly said, "no, thank you," when instructed to sit with the group and participate in the life review project. He sat in the room, separate from the group. Over the course of the six-week group, this participant began walking around the tables and looking at the pre-cut imagery. He was encouraged to select imagery related to that week's prompt. In the final week, he sat with the group for the entire session, and completed all six life review stages. He was able to join the group and complete the project. His caregiver expressed gratitude and excitement that this participant had joined at all.

Similarly, the participant that used colored pencil in the final session had also refused to participate during the first session. However, over the course of the six-week group, her participation increased and she became more involved with the entire process. Though she initially seemed indifferent, this participant began regularly asking what prompt would be used in the next session and stated that she looked forward to working on her life review project again. This participant, in particular, also developed trust with the researcher. She thanked the researcher several times in the post-test session, and was thrilled when she was able to show her caregiver the artwork she had created.

The facility at which the present study took place supported the use of the QOL-AD. This assessment may not be suited for facilities where the participants are permanent residents. Joy's House consists of guests who participated in the study, and their caregivers who pick them up and drop them off each day. Had the caregivers not been present on a daily basis, the data may not have been as accurate. However, the caregiver component was challenging due to bias and the dual roles they serve. For instance, when asked about marriage, those caregivers that were spouses of the participants rated the domain lower than the participant with dementia. Other domains, such as living situation, were also impacted by bias since the caregiver was rating their own home. This domain elicited an amused answer from all eight caregivers. The caregiver component, though valuable for comparisons, may not be necessary when measuring QoL. The self-rated scores increased more than the combined QOL-AD scores did.

A QoL assessment specific to art therapy may be useful in the future. Domains that are more applicable – such as energy, mood, and self as a whole – could be expanded to replace domains such as money. More specific questions may also aid in the question and answer process, as the researcher found that many participants were confused by broad questions such as those for the family and friends domains. There were repeated verbalizations including, "it depends on which friends," indicating the need to differentiate between relationships, perhaps rating a particular friendship or relationship pre- and post-test.

Clinical Applications

The application of this research could potentially affect individuals with dementia at other adult day services. Information regarding material use could be used to inform material selection in art therapy clinical work. Collage was selected every session, by every participant, which may indicate that this material would provide comfort as well as control when starting a

project with individuals with dementia. QoL was found to be a prevalent concern when treating individuals with dementia (Hattori et al., 2011; Jones & Hays, 2016; Kim et al., 2016; Tai et al., 2016; Tucknott-Cohen & Ehresman, 2016; Cowl & Gaugler, 2014). Mace (1987) believes dementia care should focus on improving QoL rather than attempting to change the course of the illness. The current study indicated that art therapy can potentially impact QoL for individuals with dementia. This information can be used to develop goals and treatment plans for these individuals, especially when supplementing other types of treatment that have been found to provide only temporary relief.

Addressing the Diagnosis

Another difficulty came with addressing dementia as part of the study. Though this term is used repeatedly in this paper, bringing the disease up during the interview process resulted in denial of the illness by participants, and an apparent uneasiness in caregivers. Dementia was not mentioned throughout the six-week group in order to avoid making the participants uncomfortable or upset.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

Nancy L. Mace described life with dementia as a series of losses – losing the ability to work, no longer enjoying one's hobbies, becoming unable to dress oneself, getting lost in a familiar setting, and forgetting loved one's names (Zgola, 1987, p. ix-x). Fear and anxiety plague the lives of individuals with dementia, which understandably takes a toll on their overall QoL. Though it can be difficult to understand what exactly occurs in the mind of an individual with dementia – especially due to the many types, causes, and uncertainties that come with the neurodegenerative disorder – it is important to try and understand what can be done to help improve their physical, psychological, and social functioning. It is important to try and help.

Mace (1987) believes that dementia care should focus on improving QoL rather than attempting to change the course of the illness. Art therapy can be used to do just that (Chancellor et al., 2014; Ehresman, 2013; Hattori, Hattori, Hokao, Mizushima, & Mase, 2011; Jones & Hays, 2016; Tucknott-Cohen & Ehresman, 2016). The present study used Wald's (1989) success-based framework, including a life-review project completed by eight participants over the course of the study. It was hypothesized that there would be an increase in QoL scores after participation in the six-week art therapy group. At the conclusion of the project, caregivers verbally reported improved mood and abilities at home. One caregiver, in particular, noted that his mother (participant 7) began to sing, write, and complete puzzles at home during the six-week art therapy study. He and other caregivers stated that they plan to display the completed life-review project in their home. Perhaps it will serve as a reminder of the group, the stories, and the laughter.

A consistent, safe environment was provided each week. The participants were able to create despite varying losses in cognitive skills. The researcher served as a provider and assisted each participant in their artmaking process. Similarly to the findings of Stewart (2004), the participants were active and pursued companionship with the researcher and one another. The group art therapy setting fostered social exchange, particularly storytelling. The pre-cut collage images and weekly themes supported this process, perhaps providing a means of focusing on the memories being shared (Wald, 1989, p. 215).

Recommendations

As the number of dementia cases continue to increase, empirical evidence to support art therapy as beneficial treatment for individuals with this neurodegenerative condition is essential (Beard, 2011; Chancellor et al., 2013; Cowl & Gaugler, 2014). The application of this research has the potential to improve QoL for individuals with dementia, particularly in the group setting. The results of this small human-subject study are approaching significance, supporting the use of art therapy interventions with individuals with dementia to increase quality of life.

It is recommended that future art therapy studies continue to measure QoL pre- and post-intervention to provide additional support for the use of art therapy to increase QoL for individuals with dementia. This study would benefit from multiple groups to individualize care within each group and to increase the number of participants overall (e.g., two or more groups of four participants rather than one group of eight). Increasing the length of study to eight or more weeks may also aid in the difficulties that arose with attendance. More opportunities for participation may have increased the significance of the results.

The present study can also be used to inform future programming for adult day services, specifically dementia care. Implications for programming include developing multiple groups to

account for the range of abilities that the aging population presents with. These groups should have no more than eight participants, and can be formed in a way that allows for more individuals at an adult day service to participate. For instance, groups could be created for the varying stages and diagnoses of dementia. Individuals would then advance through the groups as their dementia progresses.

An open studio approach is recommended for groups with participants in the earlier stages of dementia. These individuals are capable of sophisticated thought processes and complex art projects, as evidenced by the ETC. Providing choice in materials with little to no direction will allow these participants to explore the art media as they openly create. As their dementia progresses, participants could move through groups that provide more structure and guidance from the art therapist. In addition, groups for middle to late dementia diagnoses could utilize the ETC to inform material choice, and disease progression could be tracked through the art products created by each participant over time.

The Cognitive component of the ETC can be used to heighten mental functioning, while the Sensory component can also assist in reconstituting memory and cognitive functioning. As group participants regress, they would move to groups that explore the Perceptual/Affective level of the ETC. In the later stages, when fragmentation of images and lack of formal representation can begin to occur, they would move to groups that explore the Kinesthetic/Sensory level of the ETC. As these participants continue to experience deterioration of their spatial abilities, it is imperative that their treatment be adjusted to meet them where they are at. Programming groups in this way will allow group participants experiencing different dementia diagnoses and rates of progression to have their individual needs met within the group setting.

During the present study, the researcher walked through the adult day service building to set up the art therapy space, and encountered several individuals who expressed interest in making art. Programming for these individuals should be developed in addition to dementia groups within the adult day service setting. Individuals who have not presented with symptoms of dementia, or have been diagnosed in the earlier stages, should be provided with one or more groups for those who would still like to participate in art therapy.

Wald's method may benefit from a stronger theoretical base. The description of this method was minimal, and no previous studies were found to have used it. Though the researcher had anticipated one project over the course of six weeks would assist with remembering, using multiple sheets of paper (one for each theme/week) may have better supported the participants' artmaking process. When using this method in the future, it is suggested that providing a boundary is essential to keep the rest of the boxes empty for future sessions. However, using another color paper may have made the boundary more visible for participants.

Reviewing the artwork can also provide supplementary correlations between art therapy and Wald's method as a means of improving QoL for individuals with dementia. Additional research on the use of the QOL-AD for any individual with dementia (not just AD) to measure QoL would be useful. Another assessment, or perhaps the creation of a new assessment, may better support art therapy as the primary treatment being used. Some of the QOL-AD's thirteen domains did not necessarily fit every participant's circumstance or the treatment being used between tests. Domains such as health and money may not necessarily be improved by an art therapy intervention. Expanding upon the domains of energy, mood, and self as a whole might be more appropriate.

The caregiver component, though supported by an adult day service setting, may not be necessary when measuring QoL. When the self-reported and caregiver-reported scores were combined, no significance was found. The scores were found to be approaching significance when considered individually. Caregiver bias and inconsistencies between participant and caregiver scores additionally support the use of self-scores alone rather than combining these scores with a caregiver component.

In conclusion, this human-subject study design demonstrated that participation in a six-week art therapy group has the potential to increase QoL for individuals with dementia. The participant and caregiver pre- and post-test total scores and scores for the domain of self as a whole were found to be approaching significance. The group setting allowed for social exchange, particularly storytelling. The participants were able to create, communicate, and laugh together. Their artwork will continue to serve as a representation of the stories that were shared, and the memories that were evoked during this study.

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APPENDIX A

Informed Consent

INDIANA UNIVERSITY INFORMED CONSENT STATEMENT FOR SOCIAL BEHAVIORAL RESEARCH

A Short-Term Art Therapy Intervention for Individuals with Dementia

IUPUI 1612525915

WHY IS THIS RESEARCH BEING DONE?
The purpose of this study is to identify if participation in group art therapy sessions will increase quality of life for individuals with dementia. You were selected as a possible participant based on your availability and current involvement at Joy's House Adult Day Service. Please read this form and ask any questions you may have before agreeing to be in the study.

The study is being conducted by Brittany Hinkle, candidate for Master's Degree in Art Therapy, at Herron School of Art and Design, IUPUI.

HOW MANY PEOPLE WILL TAKE PART?
If you agree to participate, you will be one of 5-20 subjects taking part in this study.

WHAT WILL HAPPEN DURING THE STUDY?
If you agree to be in the study, you will do the following things:

- Complete a pre- and post-test (10-15 minutes each)
- Participate in 6 group art therapy sessions, 1-hour/week, over 6-weeks
- Create an art project over the 6-weeks using 18-by-24-inch paper, pencils, colored pencils, magic markers, pre-cut collage images, and glue sticks.

WHAT ARE THE RISKS OF TAKING PART IN THE STUDY?
While participating in the study, the risks, side effects, and/or discomforts include:

- A risk of completing the survey is being uncomfortable answering the questions.
- There is a risk of possible loss of confidentiality, though efforts will be made to keep your personal information confidential.
- While completing the survey, you can tell the researcher that you feel uncomfortable or that you do not want to answer a particular question.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THE STUDY?
There are no direct benefits; however, the study may contribute to the field of art therapy by providing evidence of an effective protocol for individuals with dementia.

HOW WILL MY INFORMATION BE PROTECTED?

The research will maintain confidentiality of the participants by assignment of participant numbers on the data collection forms which include: material choice, verbalizations, and amount of time used in the session. To ensure participant's understanding, the rules and perimeters of the study will be reviewed upon the beginning of each session. Although efforts will be made to keep your personal information confidential, we cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Your identity will be held in confidence in reports in which the study may be published. Organizations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the study investigator and her research associates, the Indiana University Institutional Review Board or its designees, and the study sponsor Herron School of Art and Design, Indiana University Purdue University of Indianapolis faculty.

WILL MY INFORMATION BE USED FOR RESEARCH IN THE FUTURE?

Information collected from you for this research may be used for future research studies or shared with other researchers for future research. If this happens, information which could identify you will be removed before any information or specimens are shared. Since identifying information will be removed, we cannot ask for your additional consent.

WHO SHOULD I CALL WITH QUESTIONS OR PROBLEMS?

For questions about the study, contact the researcher, Brittany Hinkle, at (317) 451-8140.

For questions about your rights as a research participant, to discuss problems, complaints, or concerns about a research study, or to obtain information or to offer input, please contact the IU Human Subjects Office at (317) 278-3458 or at irb@iu.edu.

CAN I WITHDRAW FROM THE STUDY?

If you decide to participate in this study, you can change your mind and decide to leave the study at any time in the future. The study team will help you withdraw from the study safely. If you decide to withdraw, you will not be expected to attend the weekly sessions.

PARTICIPANT'S CONSENT

In consideration of all of the above, I give my consent to participate in this research study.

I will be given a copy of this informed consent document to keep for my records. I agree to take part in this study.

Participant's Printed Name:_____

Participant's Signature:_____ **Date**:_____

Printed Name of Caregiver: _____

Signature of Caregiver: _____ **Date:** _____

Printed Name of Person Obtaining Consent: _____

Signature of Person Obtaining Consent: _____ **Date**: _____

APPENDIX B

Art Therapy Release Form

Joy's House
ADULT DAY SERVICE

2028 E. Broad Ripple Ave.
Indianapolis, IN 46220
(317) 254-0828
www.joyshouse.org

ART THERAPY RELEASE FORM

Joy's House, Art Therapists and Art Therapy interns may provide an art therapy program to the following Guest:

_____

Guest Name

Please check the box on the right if permission is granted to photograph artwork created in the art therapy classes or one-on-one sessions. ☐

Your signature below serves as an agreement that you are aware that your loved one may participate in the art therapy program provided by Joy's House. By signing below the Guest agrees to respect the artistic work, therapeutic process and opinions of their classmates.

_____ _____

Guest Signature **If unable to sign, caregiver may print Guest name**

_____ _____

Signature of Caregiver **Date**

For office use only:

_____ _____

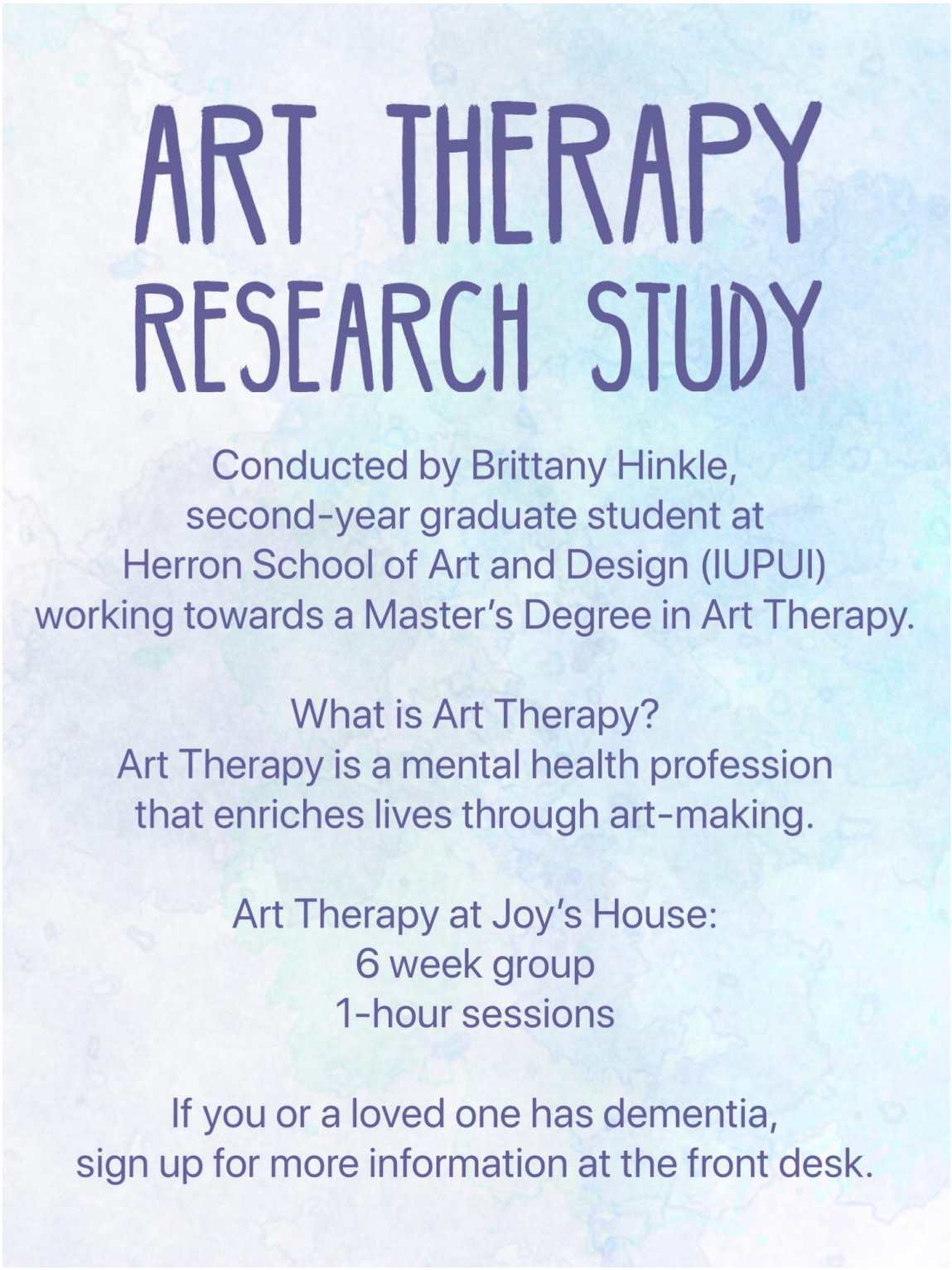
Signature of Staff Liaison Title of Staff Liaison

Other:

Revised 9/2013

APPENDIX C

Recruitment Flyer



APPENDIX D

Capacity Assessment Record

Capacity Assessment Checklist
for Research Informed Consent

Subject Name: _____

Date of Consent Meeting/Assessment: _____ Time of Day: _____

Participant LAR or Family Present: 1. _____ 2. _____ 3. _____

Capacity Assessment Record

CONSENT DIALOGUE

1-Was protocol presented to/discussed with subject? Yes ( ) No ( ) Other: _____

2-Was protocol presented to/discussed with subject's LAR/family? Yes ( ) No ( ) Other: _____

CONSENT ABILITIES

3-Did subject *make a choice* to participate/not participate in research protocol? Yes ( ) No ( ) Marginal ( )
Choice: Participate ( ) Not Participate ( ) Defer Decision ( ) Decision Unclear ( ) Other ( )
Briefly explain: _____

4-Did subject show *understanding* of the research protocol and its elements, including risks/benefits of participation? Yes ( ) No ( ) Marginal ( )
Briefly explain: _____

5-Did subject *show reasoning/provide rational reasons* for participation/non-participation in the research protocol? Yes ( ) No ( ) Marginal ( )
Briefly explain: _____

6-Did subject show an *appreciation of the personal risks/benefits* of participation/non-participation in the protocol? Yes ( ) No ( ) Marginal ( )
Briefly explain: _____

CAPACITY /INFORMED CONSENT/ASSENT

7- Was subject competent to consent to participation/non-participation in research protocol?
Yes ( ) No ( ) Other: _____
Briefly explain: _____

8- Was informed consent for research participation obtained from the subject?
Yes ( ) No ( ) Other: _____
Briefly explain: _____

9- If subject unable to consent, was informed consent for research participation obtained from subject's LAR or family? Yes ( ) No ( ) N/A ( ) Other: _____
Briefly explain: _____

10- If subject unable to consent and LAR/family approved participation, did subject show ***assent*** to participation?
Yes ( ) No ( ) Unclear ( ) N/A ( ) Other: _____
Briefly explain: _____

Completed by: _____ ***Date:*** _____
[Signature]

APPENDIX E

In-Session Data Collection Sheet

Data Collection Sheet

Participant's Assigned Number: _____

Week Number / Section Title:

_____

Material Choice:

_____

Verbalizations:

_____

_____

_____

_____

Time in Session:

_____

APPENDIX F

Participant 1 Pre- and Post-tests

Table 7

Participant 1 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	3	3
2	Energy	3	4
3	Mood	3	3
4	Living situation	4	3
5	Memory	3	2
6	Family	3	4
7	Marriage	4	4
8	Friends	3	4
9	Self as a whole	3	4
10	Ability to do chores around the house	4	3
11	Ability to do things for fun	3	3
12	Money	3	2
13	Life as a whole	4	4

APPENDIX G

Caregiver 1 Pre- and Post-tests

Table 8

Caregiver 1 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	3	3
2	Energy	2	4
3	Mood	2	3
4	Living situation	4	4
5	Memory	1	2
6	Family	3	4
7	Marriage	3	3
8	Friends	3	3
9	Self as a whole	3	3
10	Ability to do chores around the house	1	3
11	Ability to do things for fun	1	3
12	Money	4	1
13	Life as a whole	1	3

APPENDIX H

Participant 1 Combined Score Summary

QOL-AD pre-test:

Participant's own QoL rating.....43

Caregiver's score of participant's QoL.....31

*Combined score 39

QOL-AD post-test:

Participant's own QoL rating.....43

Caregiver's score of participant's QoL.....39

*Combined score 41.7

*Each participant score was multiplied by 2, added to the caregiver's score, and then the composite was divided by 3.

APPENDIX I

Participant 2 Pre- and Post-tests

Table 9

Participant 2 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	3	3
2	Energy	1	2
3	Mood	2	2
4	Living situation	4	3
5	Memory	2	2
6	Family	4	4
7	Marriage	3	3
8	Friends	3	2
9	Self as a whole	2	2
10	Ability to do chores around the house	3	3
11	Ability to do things for fun	2	3
12	Money	3	2
13	Life as a whole	2	2

APPENDIX J

Caregiver 2 Pre- and Post-tests

Table 10

Caregiver 2 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	2	3
2	Energy	1	1
3	Mood	2	2
4	Living situation	4	2
5	Memory	1	1
6	Family	3	3
7	Marriage	3	4
8	Friends	1	3
9	Self as a whole	1	2
10	Ability to do chores around the house	2	2
11	Ability to do things for fun	2	3
12	Money	1	1
13	Life as a whole	3	3

APPENDIX K

Participant 2 Combined Score Summary

QOL-AD pre-test:

Participant's own QoL rating.....34

Caregiver's score of participant's QoL.....26

*Combined score 31.3

QOL-AD post-test:

Participant's own QoL rating.....33

Caregiver's score of participant's QoL.....30

*Combined score 31

*Each participant score was multiplied by 2, added to the caregiver's score, and then the composite was divided by 3.

APPENDIX L

Participant 3 Pre- and Post-tests

Table 11

Participant 3 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	3	3
2	Energy	3	3
3	Mood	3	3
4	Living situation	3	4
5	Memory	3	3
6	Family	4	4
7	Marriage	4	4
8	Friends	3	3.5
9	Self as a whole	3	3
10	Ability to do chores around the house	2	3.5
11	Ability to do things for fun	2	4
12	Money	3	4
13	Life as a whole	4	4

APPENDIX M

Caregiver 3 Pre- and Post-tests

Table 12

Caregiver 3 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	3	4
2	Energy	2	3
3	Mood	3	4
4	Living situation	4	4
5	Memory	2	1
6	Family	3	3
7	Marriage	4	4
8	Friends	3	4
9	Self as a whole	3	3
10	Ability to do chores around the house	2	1
11	Ability to do things for fun	2	3
12	Money	1	1
13	Life as a whole	4	4

APPENDIX N

Participant 3 Combined Score Summary

QOL-AD pre-test:

Participant's own QoL rating.....40

Caregiver's score of participant's QoL.....36

*Combined score 38.7

QOL-AD post-test:

Participant's own QoL rating.....46

Caregiver's score of participant's QoL.....39

*Combined score 43.7

*Each participant score was multiplied by 2, added to the caregiver's score, and then the composite was divided by 3.

APPENDIX O

Participant 4 Pre- and Post-tests

Table 13

Participant 4 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	2	3
2	Energy	1	1
3	Mood	1	1
4	Living situation	2	2
5	Memory	4	4
6	Family	2	3
7	Marriage	3	2
8	Friends	1	2
9	Self as a whole	1	3
10	Ability to do chores around the house	3	3
11	Ability to do things for fun	2	3
12	Money	3	4
13	Life as a whole	1	3

APPENDIX P

Caregiver 4 Pre- and Post-tests

Table 14

Caregiver 4 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	3	3
2	Energy	2	2
3	Mood	2	3
4	Living situation	4	3
5	Memory	2	3
6	Family	2	3
7	Marriage	3	3
8	Friends	1	2
9	Self as a whole	2	2
10	Ability to do chores around the house	2	2
11	Ability to do things for fun	2	2
12	Money	2	1
13	Life as a whole	2	3

APPENDIX Q

Participant 4 Combined Score Summary

QOL-AD pre-test:

Participant's own QoL rating.....26

Caregiver's score of participant's QoL.....30

*Combined score 27.3

QOL-AD post-test:

Participant's own QoL rating.....34

Caregiver's score of participant's QoL.....32

*Combined score 33.3

*Each participant score was multiplied by 2, added to the caregiver's score, and then the composite was divided by 3.

APPENDIX R

Participant 5 Pre- and Post-tests

Table 15

Participant 5 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	3	3
2	Energy	3	3
3	Mood	4	2
4	Living situation	3	3
5	Memory	3	3
6	Family	4	4
7	Marriage	4	4
8	Friends	3	3
9	Self as a whole	3	3
10	Ability to do chores around the house	4	3
11	Ability to do things for fun	4	4
12	Money	3	3
13	Life as a whole	4	3

APPENDIX S

Caregiver 5 Pre- and Post-tests

Table 16

Caregiver 5 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	2	3
2	Energy	2	1
3	Mood	3	3
4	Living situation	3	4
5	Memory	1	2
6	Family	4	4
7	Marriage	4	4
8	Friends	3	4
9	Self as a whole	3	3
10	Ability to do chores around the house	2	3
11	Ability to do things for fun	3	4
12	Money	1	1
13	Life as a whole	4	4

APPENDIX T

Participant 5 Combined Score Summary

QOL-AD pre-test:

Participant's own QoL rating.....45

Caregiver's score of participant's QoL.....35

*Combined score 41.7

QOL-AD post-test:

Participant's own QoL rating.....41

Caregiver's score of participant's QoL.....40

*Combined score 40.7

*Each participant score was multiplied by 2, added to the caregiver's score, and then the composite was divided by 3.

APPENDIX U

Participant 6 Pre- and Post-tests

Table 17

Participant 6 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	2	3
2	Energy	3	4
3	Mood	3	2
4	Living situation	4	4
5	Memory	3	2
6	Family	4	4
7	Marriage	3	2
8	Friends	3	3
9	Self as a whole	2	4
10	Ability to do chores around the house	3	4
11	Ability to do things for fun	3	4
12	Money	3	4
13	Life as a whole	4	4

APPENDIX V

Caregiver 6 Pre- and Post-tests

Table 18

Caregiver 6 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	4	4
2	Energy	3	3
3	Mood	3	2
4	Living situation	4	4
5	Memory	2	2
6	Family	4	4
7	Marriage	4	4
8	Friends	3	4
9	Self as a whole	2.5	2.5
10	Ability to do chores around the house	3	3
11	Ability to do things for fun	4	3
12	Money	1.5	1
13	Life as a whole	3	3

APPENDIX W

Participant 6 Combined Score Summary

QOL-AD pre-test:

Participant's own QoL rating.....41

Caregiver's score of participant's QoL.....41

*Combined score 41

QOL-AD post-test:

Participant's own QoL rating.....44

Caregiver's score of participant's QoL.....39.5

*Combined score 42.5

*Each participant score was multiplied by 2, added to the caregiver's score, and then the composite was divided by 3.

APPENDIX X

Participant 7 Pre- and Post-tests

Table 19

Participant 7 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	3	3
2	Energy	3	3
3	Mood	3	3
4	Living situation	3	3
5	Memory	3	3
6	Family	3	3
7	Marriage	3	3
8	Friends	3	3
9	Self as a whole	3	3
10	Ability to do chores around the house	3	3
11	Ability to do things for fun	3	3
12	Money	2	3
13	Life as a whole	2	3

APPENDIX Y

Caregiver 7 Pre- and Post-tests

Table 20

Caregiver 7 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	3	3
2	Energy	3	3
3	Mood	4	3
4	Living situation	4	4
5	Memory	2	3
6	Family	4	4
7	Marriage	4	4
8	Friends	3	3
9	Self as a whole	2	3
10	Ability to do chores around the house	2	3
11	Ability to do things for fun	3	3
12	Money	4	2
13	Life as a whole	3	3

APPENDIX Z

Participant 7 Combined Score Summary

QOL-AD pre-test:

Participant's own QoL rating.....37

Caregiver's score of participant's QoL.....41

*Combined score 38.3

QOL-AD post-test:

Participant's own QoL rating.....39

Caregiver's score of participant's QoL.....41

*Combined score 39.7

*Each participant score was multiplied by 2, added to the caregiver's score, and then the composite was divided by 3.

APPENDIX AA

Participant 8 Pre- and Post-tests

Table 21

Participant 8 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	4	4
2	Energy	4	4
3	Mood	4	4
4	Living situation	4	4
5	Memory	4	4
6	Family	4	4
7	Marriage	4	4
8	Friends	4	4
9	Self as a whole	4	4
10	Ability to do chores around the house	4	4
11	Ability to do things for fun	4	4
12	Money	4	4
13	Life as a whole	4	4

APPENDIX BB

Caregiver 8 Pre- and Post-tests

Table 22

Caregiver 8 Pre- and Post-test Scores

Question	Domain	Pre-test Score	Post-test Score
1	Health	3	3
2	Energy	1	1
3	Mood	2	3
4	Living situation	3	3
5	Memory	1	1
6	Family	3	2
7	Marriage	2	3
8	Friends	3	3
9	Self as a whole	3	3
10	Ability to do chores around the house	1	1
11	Ability to do things for fun	2	1
12	Money	1	1
13	Life as a whole	3	3

APPENDIX CC

Participant 8 Combined Score Summary

QOL-AD pre-test:

Participant's own QoL rating.....52

Caregiver's score of participant's QoL.....28

*Combined score 44

QOL-AD post-test:

Participant's own QoL rating.....52

Caregiver's score of participant's QoL.....28

*Combined score 44

*Each participant score was multiplied by 2, added to the caregiver's score, and then the composite was divided by 3.